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ARMED SERVICES VOCATIONAL APTITUDE BATTERY (ASVAB): THE EQUITY OF ASVAB FORM 14 IN THE PREDICTION OF HIGH SCHOOL COURSE GRADES

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Armed Services Vocational Aptitude Battery (ASVAB) Form 14 scores and final course grades from approximately 8,000 high school students enrolled in 50 schools were collected. Course grades were obtained for courses taken during the year in which students were administered the ASVAB (1984-85) and the following year (1985-86). Twelve ASVAB composite scores were used as predictors of the criterion final course grades. ASVAB subsamples which proved to be valid predictors of course grade and were of sufficient size for analysis were included in the equity analysis. Overall, 94 courses by school year by grade level subsamples were investigated. Generally, gender and/or ethnic group membership information was needed in the prediction equations for all the ASVAB composites.

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SUMMARY

This study investigates the equity of the Armed Services Vocational Aptitude Battery (ASVAB) Form 14 in the prediction of high school course grades. Thirty-nine course grades were obtained from approximately 8,000 students enrolled in 50 geographically dispersed high schools.

Subsamples or course grades in this investigation were defined by course name, grade level and the two school years in which students took the courses (1984-85 and 1985-86). The ASVAB Form 14 was administered during the 1984-85 school year. Regression equations were conducted, in an hierarchical manner, for each criterion final course grade. The predictor variables of interest were twelve ASVAB composites as aptitude measures, gender group membership, ethnic group membership, the gender by ASVAB two-way interaction variables, the ethnicity by ASVAB two-way interaction variables, the gender by ethnicity two-way interaction variables, and the ASVAB by gender by ethnicity three-way interaction variables.

The results of the equity analyses are discussed in terms of which ASVAB composite score was included in the regression equations, the course name, the grade level, the year the course was taken and which gender and ethnic subgroups were investigated.

The findings of this study generally indicated that all the ASVAB composites need gender and/or ethnic information in the prediction equations for final course grades. Typically, either slope or intercept differences were evidenced for the gender or ethnic subgroups across most subsamples for each of the ASVAB composites. If intercept differences were indicated, generally females or Whites would be underpredicted if a common regression line were to be used, while males or minority group members would be overpredicted if a common regression line were used.

PREFACE

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TABLE OF CONTENTS

TABLE OF CONTENTS (Continued)

TABLE OF CONTENTS (Continued)

TABLE OF CONTENTS (Continued)

Page

TABLE OF CONTENTS (Continued)

TABLE OF CONTENTS (Continued)

TABLE OF CONTENTS (Continued)

TABLE OF CONTENTS (Continued)

TABLE OF CONTENTS (Continued)

TABLE OF CONTENTS (Continued)

TABLE OF CONTENTS (Continued)

TABLE OF CONTENTS (Continued)

Page

TABLE OF CONTENTS (Continued)

Page

TABLE OF CONTENTS (Continued)

TABLE OF CONTENTS (Continued)

TABLE OF CONTENTS (Continued)

TABLE OF CONTENTS (Continued)

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TABLE OF CONTENTS (Continued)

TABLE OF CONTENTS (Continued)

TABLE OF CONTENTS (Continued)

TABLE OF CONTENTS (Continued)

TABLE OF CONTENTS (Continued)

TABLE OF CONTENTS (Continued)

TABLE OF CONTENTS (Continued)

TABLE OF CONTENTS (Continued)

TABLE OF CONTENTS (Continued)

TABLE OF CONTENTS (Concluded)

LIST OF FIGURES

LIST OF TABLES

LIST OF TABLES (Concluded)

Page

ARMED SERVICES VOCATIONAL APTITUDE BATTERY (ASVAB): THE EQUITY OF ASVAB FORM 14 IN THE PREDICTION OF HIGH SCHOOL COURSE GRADES

I. INTRODUCTION

The operational Armed Services Vocational Aptitude Battery (ASVAB) is the multiple aptitude battery used for selection and classification of enlisted personnel for all branches of the Armed Services and is also used in a high school testing program by the joint services.

The operational and high school ASVAB forms are developed to be content and statistically parallel to the reference form ASVAB 8a. Results of equating studies of these sets of forms show that ASVAB versions developed after 1980 are content and statistically parallel (Prestwood, Vale, Massey, & Welsh, 1985). An important characteristic of any test is that it is equitable; that is, that the scores are equally valid for all ethnic or gender groups. Anastasi (1976) reports that there has been research conducted on possible subgroup differences in the predictive meaning of test scores since the mid-1960's. The first concern in equity analyses, called slope bias, looks at validity coefficients being systematically and significantly different for the subgroups. The slope of the regression lines are equivalent to the correlation coefficients when the criterion and predictor scores are standardized. The second issue in equity research, called intercept bias, addresses systematic differences between subgroup mean scores on the test predictor and the criterion. A test exhibiting systematic intercept bias has similar validity coefficients for the different subgroups, but it underpredicts or overpredicts criterion performance for a particular group. Intercept bias discriminates against the group with the higher intercept if a common regression line is used to predict performance on the criterion variable. Thus, the importance of equity in test-score use is that it predicts a given criterion variable with similar accuracy for males, females, ethnic majority members, and ethnic minority members. The goal of equity analysis of the high school ASVAB, then, is to determine whether the ASVAB predictive score information for final course grades is equally valid, regardless of ethnic or gender group membership.

The Air Force high school testing program began in 1962 in order to provide school guidance counselors with student aptitude information and to identify potential Air Force enlistees. The Army and Navy also wanted to test in the high schools during this time, using their own test batteries. This required considerable testing time which was burdensome for the schools. Therefore, in 1966, a joint service committee of measurement and evaluation experts was asked to develop and standardize an aptitude battery for use by all the branches of the Armed Forces for the High

School Testing Program. The goal in the development of the initial ASVAB was to offer aptitude measures which would include content domains necessary for classifications within each of the separate services. By September 1968, ASVAB-1 was accepted for use in the High School Testing Program (Weeks, Mullins, & Vitola, 1975).

Today the ASVAB is offered to the nation's high schools by the Department of Defense (DoD) free of charge. It is administered to over 1.3 million students in approximately 14,000 schools per year. ASVAB high school composite scores are used by counselors and students in career exploration, while the Armed Forces Qualification Test (AFQT) is used by the military to identify students who are qualified for enlistment into the Armed Forces (U.S. Military Entrance Processing Command, 1984). Thus, it is necessary to conduct research in the area of equity to insure that test bias against certain subgroups of people does not exist.

Past equity research has used the operational composites derived from the ASVAB as predictor variables. Some of these investigations found nonsignificant slope differences for gender or ethnic subgroup members (Maier & Curia, 1986; McLaughlin, Rossmeissl, Wise, Brandt, & Wang, 1984), while other studies found intercept differences between Blacks and Whites and between males and females (Booth-Kewley, Foley & Swanson, 1984; Dunbar & Novick, 1984). Studies which have shown significant intercept differences between gender or ethnic subgroups attributed these results to small subgroup sample sizes (Dunbar & Novick, 1984; Booth-Kewley, Foley, & Swanson, 1984). However, it should be noted that the Dunbar & Novick investigation used a different type of analysis, the Johnson-Neyman procedure, which looked at test bias at a particular cutting score point as opposed to looking at bias across all score points.

One specific equity investigation has used the high school composites for ASVAB Form 14. Maier and Truss (1984) examined the validity of the high school composites for predicting Marine Corps training course grades. In addition, they evaluated gender and racial effects on the validity of these composites. Results revealed that the slopes for all subgroups did not differ. No intercept differences were found for the ethnic groups or for males and females in the prediction of training course grades in nontraditional female occupations (mechanical and electronics). However, the composites did underpredict female performance in some traditional female occupations, such as clerical and food services. The authors noted that in most courses the number of females was small, with fewer than 25 enrolled. Even though significant findings existed, further analyses with larger female samples was needed to determine if overprediction or underprediction of females was evident.

Since past research has usually investigated the equity of the operational ASVAB composites and has reported subgroup effects on these validity coefficients, an investigation of the equity of high school ASVAB composite scores with sufficient subgroup representation is warranted. Thus, the scope of this study is to investigate the equity of various ASVAB Form 14 composite scores in predicting final course grades for freshmen, sophomores, juniors, and seniors enrolled in geographically dispersed high schools.

II. METHOD

Subjects

The original sample was 8,390 high school students tested on ASVAB Form 14 during school year 1984-85 and for whom school year 1984-85 and 1985-86 course grades were available The sample was 52% female (N=4,368), 67% White (N=5,650), 16% Black (N=1,343), and 13% Hispanic (N=1,096). Thirty percent of the sample were freshmen, 30% were sophomores, 22% juniors, and 18% seniors at the time of ASVAB testing.

Measures

Predictors

ASVAB-14 is a group administered, paper and pencil multiple aptitude battery. The battery contains ten subtests; eight power test and two speeded. The content of each subtest, the number of items, and the time limits allowed are shown in Table 1.

Twelve composites were constructed from the subtest standard scores (see Table 2). The Verbal, Math, Technical and Perceptual Speed composites were developed using results from factor analysis. Academic Ability is a combination of subtests from the Verbal and Math composites and is used as an indicator of academic ability. Mechanical and Crafts; Business and Clerical; Electronics and Electrical; and Health, Social, and Technology were derived through analysis of validity studies involving prediction of success in military technical training programs. The Armed Forces Qualification Test (AFQT) is used by all the armed services to select enlisted personnel. The subtest composite is a linearly weighted composite developed in an investigation of the validity of ASVAB Form 14 for predicting high school course grades. A unique composite exists for each course (see Welsh, Fairbank, & Sawin, in preparation). The General composite is an experimental measure of general ability. Seven of the composites are the current high school composites: Academic Ability; Verbal; Math; Mechanical and Crafts; Business and Clerical; Electronics and Electrical; and Health, Social and Technology.

Table 1. Description of ASVAB Form 14 Subtests

Subtest	Content	# of items	Administration time (minutes)	Type
AFQT Subtests				
Arithmetic Reasoning (AR)	Measures ability to solve arithmetic word problems.	30	36	power
Word Knowledge (WK)	Measures ability to select meanings of words.	35	11	power
Paragraph Comprehension (PC)	Measures ability to obtain information from written passages.	15	13	power
Mathematics Knowledge (MK)	Measures knowledge of high school mathematics principles.	25	24	power
Non-AFQT Subtests				
General Science (GS)	Measures knowledge of physical, chemical and biological sciences.	25	11	power
Numerical Operations (NO)	Measures ability to perform simple computations in a speeded context.	50	3	speed

Table 1. (Concluded)

Subtest	Content	# of items	Administration time (minutes)	Type
Coding Speed (CS)	Measures ability to match similar sets of numbers with words in a speeded context.	84	7	speed
Auto and Shop Information (AS)	Measures knowledge of automobiles, tools, and shop terminology and practices.	25	11	power
Mechanical Comprehension (MC)	Measures knowledge of mechanical and physical principals.	25	19	power
Electronics Information (EI)	Measures knowledge of electricity and electronics.	25	9	power

Table 2. ASVAB Composite Construction

ASVAB composites	Subtest scores included in calculations
High School Composites	
Academic	
Academic Ability (AA)	AR+VE (VE=WK+PC)
Verbal (VERB)	WK+PC+GS
Math (MTH)	AR+MK
Occupational	
Mechanical & Crafts (M&C)	AR+AS+MC+EI
Business & Clerical (B&C)	VE+CS+MK
Electronics & Electrical (E&E)	GS+A[illegible]K+EI
Health, Social & Tec[illegible] (HS[illegible])	AR+V[illegible]C
AFQT Selector Composite	[illegible]R+MK+2VE
Perceptual Speed Composite (P[illegible])	NO+CS
Technical Composite (TEC)	AS+MC+EI
General Composite (GEN)	GS+AR+WK+PC+NO+CS+ AS+MK+MC+EI[a]
Subtest Composite (SUB)	GS+AR+WK+PC+NO+CS+ AS+MK+MC+EI[b]

[a]The General Composite is based on previous principle components analysis (see Ree, 1989).
[b]Linearly weighted composite.

Criterion

The criterion variable was final course grades obtained in courses that were not honors level. Thirty-nine representative high school courses were identified. These courses fell within one of three general categories: general education, business and clerical, and trade and specialty. Courses grades used were 'A,' 'B,' 'C,' 'D,' and 'F,' and were given the numeric values of '4,' '3,' '2,' '1,' and '0,' respectively. Two years of grades were obtained, one for the year of ASVAB testing (1984-85) and the other for the year immediately following ASVAB testing (1985-86). The list of high school courses can be examined in Table 3.

Table 3. High School Courses by School Year and Subject Sample[a]

Course	1984-1985				1985-1986		
	Fr	So	Jr	Sr	Fr	So	Jr
General Educ							
Eng I-IV	**	**	**	**	**	**	**
Gen Math	**	**	**	**	**	**	**
Algebra	**	**	**	**	**	**	**
Geometry		**	**	**	**	**	**
Calculus				*			**
Gen Science	**	**	**	**	**	**	**
Biology	**	**	**	**	**	**	**
Chemistry		**	**	**	**	**	**
Physics				**			**
Gov & Civics	**	**	**	**	*	**	**
History	**	**	**	**	**	**	**
Foreign Lang	**	**	**	**	**	**	**
Bus & Clerical							
Bus Math		*			*		
Secy & Ofc				**		*	**
Typing & WP	**	**	**	**	**	**	**
Acct & Book			**	**		**	**
Marketing							
Bus Data Proc							
Data Process							
Trade & Spec							
Home Econ	**	**	**	**	**	**	**
Shop	*	*	*	*	*	*	*
Dft & Com Art		*				*	
Computer Prog			**	**		**	**
Voc Agr	*	*			*	*	
Air Con & Heat							
Auto & Mech							
Elec Trades							
Metal Trades							
Piping Trades							
Bldg Trades							
Welding							
Engine Repair							
Voc Elec							
Health Occup							
Dental Aide							
Nursing Aide							

Table 3. (Concluded)

Course	1984-1985				1985-1986		
	Fr	So	Jr	Sr	Fr	So	Jr
General Educ							
Phys Ther Aide Vet Asst Med Lab Asst							

[a]Blank cells indicate samples not used in validity analyses due to small numbers of cases; one asterisk means that the ASVAB composites were valid predictors ($p \leq .05$); two asterisks mean that the courses had adequate subgroup sample sizes for equity analyses and at least one ASVAB composite was a valid predictor ($p \leq .05$).

Procedure

ASVAB-14 scores, student name, and the name and address of the high school the student attended at the time of ASVAB testing were obtained from the United States Military Entrance Processing Command (USMEPCOM). Machine scorable answer sheets containing individual student's names and the 39 course titles were sent to school guidance counselors who had agreed to provide course grades. Counselors received one dollar for each completed form. Completed forms were optically scanned and the data merged with the ASVAB scores.

As can be noted from Table 3, 112 course samples of the 273 were identified as being validly predicted by at least one ASVAB composite at the $p \leq .05$ significance level. Of these 112 samples, 94 were retained for the equity analyses because the subgroups of interest had sufficient representation. Thus, 94 sample course grades were used in the equity analyses as the criterion variable. The previously mentioned twelve ASVAB composites were the predictor variables with gender and ethnic group membership being the subgroups of interest.

Analyses

The first analytic step was to calculate summary statistics on the twelve ASVAB composites for each of the gender and ethnic subgroups. This procedure was accomplished to look at each subgroup's mean predictor scores.

Next, a general linear model procedure tested hypotheses about the contributions of aptitude scores, sex group membership, and ethnic group membership in the prediction of the final course grade criterion variable (Ward & Jennings, 1979). The first step in conducting these sequential linear models tests was to determine how to define the ethnic and gender variables in the initial full model. The initial starting model to be used was determined by the numbers of cases in each of the sex by ethnicity categories. If less than 50 cases appeared within a particular sex by ethnicity category (eg., Hispanic females), then ethnicity was redefined. The notion was to obtain as much information about ethnicity as possible until it was necessary to omit or combine ethnic groups. Thus, there were nine different types of possible starting models, each defining gender and ethnicity predictor variables in a specific manner. These nine possible starting models are presented in Table 4.

For example, if a sample possessed 50 or more cases within each of the sex by ethnicity categories, then the Type #1 of starting models would be used. This type of starting model would include the following variables within the prediction equation:

$$Y = u + ASVAB + M + F + W + B + H + M*W + F*W + M*B + F*B + M*H + F*H + ASVAB*M + ASVAB*F + ASVAB*W + ASVAB*B + ASVAB*H + ASVAB*M*W + ASVAB*F*W + ASVAB*M*B + ASVAB*F*B + ASVAB*M*H + ASVAB*F*H$$

with,

u = unit vector,
ASVAB = ASVAB composite score,
M = male,
F = female,
W = White,
B = Black,
H = Hispanic.

Restricted models were defined by removing specified predictor variables. The restricted model was then tested against the full model by using sequential F-test comparisons; these comparisons were a means of investigating hypotheses of interest. Thus, if the initial full model proved not to be significantly different from the restricted model in predicting course grade, the restricted model became the full model and the next restricted model was tested. The various model specifications, the hypotheses of interest, and hierarchical model tests are presented in Appendix B.

Table 4. Nine Types of Starting Full Models

Variables	Types of Starting Models								
	1[a]	2	3	4	5	6	7	8	9
Unit Vector	*[b]	*	*	*	*	*	*	*	*
ASVAB Composite	*	*	*	*	*	*	*	*	*
Sex (male, female)	*	*	*	*					*
Ethnicity 1 (Wh, Bl, His)	*				*				
Ethnicity 2 (Wh, Bl)		*				*			
Ethnicity 3 (Wh, His)			*				*		
Ethnicity 4 (Wh, Non-Wh)				*				*	
Sex * Ethn 1	*								
Sex * Ethn 2		*							
Sex * Ethn 3			*						
Sex * Ethn 4				*					
ASVAB * Sex	*	*	*	*					*
ASVAB * Ethn 1	*				*				
ASVAB * Ethn 2		*				*			
ASVAB * Ethn 3			*				*		
ASVAB * Ethn 4				*				*	
ASVAB * Sex * Ethn 1	*								
ASVAB * Sex * Ethn 2		*							
ASVAB * Sex * Ethn 3			*						
ASVAB * Sex * Ethn 4				*					

[a] Numbers denote the nine possible types of starting full models.

[b] Astericks indicate which variable is included in the prediction equation of the particular type of initial full model.

F-ratios were calculated as means of statistical comparisons. In order to reduce the experiment-wise error rate, the alpha level was set at $p \leq .001$ for model comparisons which initially began testing the contributions of the three-way interaction variables. Models which initially tested the contribution of the two-way sex and ethnicity interaction variables set alpha at

$p \leq .01$ (i.e., Models 7 and 10). The following F-ratio was used as a means of evaluating the significant differences between model comparisons (Bottenberg & Ward, 1963):

$$F = \frac{(R_f^2 - R_r^2)/df_1}{(1 - R_f^2)/df_2}$$

where

R_f^2 = squared multiple correlation of the full model

R_r^2 = squared multiple correlation of the restricted model

df_1 = number of independent predictor variables in the full model minus the number of independent predictor variables in the restricted model

df_2 = total number of cases minus the number of independent predictor variables in the full model.

The analytic software program that was employed allowed predictor variables to be included in the equations if the variables did not possess a high degree of collinearity. To insure that all variables were included in the prediction models, the tolerance level was set at .00000001 (Norusis, 1988).

III. RESULTS

Sample Characteristics

Due to the exclusion of honors level courses, the final sample used in these equity analyses consisted of 7,662 subjects. These subjects were 71% White (N=5,489), 16% Black (N=1,259) and 13% Hispanic (N=1,014). The total sample was nearly equal in sex representation, with 48% males (N=3,730) and 52% females (N=4,032). Summary statistics of the 12 ASVAB composite scores revealed that, on the average, Blacks typically obtained lower aptitude scores than Whites and Hispanics; and Hispanic mean scores were lower than White mean scores. Average aptitude scores were higher for White and Black males than their female counterparts within the Mechanical and Crafts, Electronics and Electrical, Health, Social, and Technology, and Technical composites. White and Black females, on the average, had higher scores than White and Black males for the Business and Clerical and Perceptual Speed composites. Hispanic males obtained higher average scores than Hispanic females on the Mechanical and Crafts and Technical composites, while Hispanic females obtained higher average scores than males on the Academic Ability, AFQT, Verbal, Math, Business and Clerical, and Perceptual Speed composites (see Appendix C).

The results of the general linear models tests are presented next, organized according to the ASVAB aptitude composite that was used as the predictor variable in the equations. Summary tables follow each ASVAB composite (Tables 5 through 16); and, a summary of these results are also presented in Appendix D.

Academic Ability High School Composite

English I - IV

Freshmen 1984-85. Using the Academic Ability high school composite with this sample, the results showed no statistically significant differences between the Model 2 vs Model 4 comparison. Model 4 included the unit vector, the Academic Ability composite score, and the sex by ethnicity two-way interaction predictor variables, with ethnicity membership being defined as White, Black and Hispanic. With Model 4 as the best prediction equation for this sample's English grade, no differential validity was evidenced for the ethnicity by Academic Ability score two-way interaction variables or the sex by Academic Ability score two-way interaction variables.

Freshmen 1985-86. This composite showed statistically significant intercept differences in the prediction equations for the two freshmen gender groups and resulted in an R^2 change of .036 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the Academic Ability composite as the predictor variable, freshmen females would be consistently underpredicted in their English grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

When the model comparisons were made for ethnic group differences, using this ASVAB composite resulted in statistically significant slope differences among the White, Black and Hispanic regression lines. With the R^2 change for the Model 10 and Model 11 comparison approximating .006 ($p \leq .001$), Model 10 would be the best prediction system for this sample. Thus, the change in the English grade per unit change in the Academic Ability high school composite was significantly different for White, Black and Hispanic freshmen.

Sophomores 1984-85. When the model comparisons were made for gender group differences, using the Academic Ability composite resulted in statistically significant slope differences between the male and female regression lines. The R^2 change for the Model 7 and Model 8 comparison was approximately .006 ($p \leq .001$), with Model 7 being the best prediction equation for this group's

English grade. Thus, the change in the English grade per unit change in the ASVAB Academic Ability composite was significantly different for this year's sophomore males and females.

Using the Academic Ability composite score as the aptitude measure resulted in no statistically significant slope or intercept differences for White, Black and Hispanic sophomores, which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the Academic Ability composite score in the prediction equation, could be used in the prediction of English course grade for these sophomores.

Sophomores 1985-86. The model comparisons for gender group differences using the Academic Ability composite showed statistically significant slope differences between the male and female regression lines, with Model 7 as the prediction equation to be used for this sample. The R^2 change for the Model 7 and Model 8 comparison was approximately .007 ($p \leq .001$). Thus, the change in the English grade per unit change in the ASVAB Academic Ability composite was significantly different for these sophomore males and females.

Statistically significant intercept differences resulted among the White, Black and Hispanic ethnic subgroups. With an R^2 change of .008 ($p \leq .001$) for the Model 11 vs Model 12 comparison, Model 11 would be the best prediction system. Thus, if a common regression line using the Academic Ability composite were used in the prediction of English course grade, White and Hispanic sophomores would be consistently underpredicted on the criterion, while Black sophomores would be consistently overpredicted.

Juniors 1984-85. When the model comparisons were made for gender group differences, using the Academic Ability high school composite resulted in statistically significant slope differences between the male and female regression lines. The R^2 change for the Model 7 and Model 8 comparison was approximately .007 ($p \leq .001$), with Model 7 being the best prediction equation for this group's English grade. Thus, the change in the English grade per unit change in the Academic Ability high school composite was significantly different for these junior males and females.

Using this ASVAB composite score as the aptitude predictor variable resulted in no statistically significant slope or intercept differences for White, Black and Hispanic juniors. Thus, Model 12, which contained only the unit vector and the Academic Ability composite score in the prediction equation, could be used in the prediction of English course grade for these individuals.

Juniors 1985-86. As in the 1984-85 school year, using the Academic Ability composite in the equations showed statistically significant slope differences between the male and female

regression lines. The R^2 change for the Model 7 and Model 8 comparison was approximately .007 ($p \leq .001$), with Model 7 being the best prediction equation for English grade. Thus, the change in the English grade per unit change in the Academic Ability composite was also significantly different for these junior males and females.

Using the Academic Ability composite score resulted in no statistically significant slope or intercept differences for the ethnic groups, with this sample including only White and Black individuals. Thus, Model 12, which contained only the unit vector and the Academic Ability composite score in the prediction equation, could be used in the prediction of English course grade for these juniors.

Seniors 1984-85. The ASVAB Academic Ability composite as the aptitude predictor showed statistically significant intercept differences in the prediction equations for the two senior gender groups and resulted in an R^2 change of .028 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the Academic Ability composite as the aptitude predictor variable, senior females would be consistently underpredicted in their English grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the White, Black and Hispanic ethnic group members. Model 12 could be used in the prediction of English course grades obtained by seniors during this school year.

General Math

Freshmen 1984-85. This sample, using the Academic Ability high school composite score as the aptitude predictor variable, resulted in statistically significant intercept differences for the gender group members, with an R^2 change of .009 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Thus, Model 8 would be the best prediction equation for this General Math sample. Using the Academic Ability composite as the aptitude predictor variable, freshmen females would be consistently underpredicted in their General Math grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the White, Black and Hispanic ethnic group members. Model 12 could be used in the prediction of General Math course grades obtained by freshmen during this school year.

Freshmen 1985-86. For this sample, the results showed no statistically significant slope or intercept differences for the gender group members or the White and Black ethnic group members. Models 9 or 12 containing only the unit vector and the Academic Ability composite score in the prediction equation, could be used in the prediction of General Math course grade for these freshmen.

Sophomores 1984-85. This sample also resulted in no statistically significant slope or intercept differences for the gender group members or the White, Black and Hispanic ethnic group members. Models 9 or 12, which contained only the unit vector and the Academic Ability composite score in the prediction equation, could be used in the prediction of General Math course grades obtained during this year by sophomores.

Sophomores 1985-86. This sample, using the Academic Ability composite in the equations, showed statistically significant intercept differences between the male and female gender subgroups. With an R^2 change of .035 ($p \leq .001$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction system. Thus, if a common regression line using the Academic Ability composite were used in the prediction of General Math course grade, female sophomores would be consistently underpredicted on the criterion, while male sophomores would be consistently overpredicted.

The results also showed no statistically significant slope or intercept differences between the White and Black ethnic group members regression lines. Thus, Model 12, containing the unit vector and the Academic Ability composite score, could be used in predicting General Math course grade for these individuals.

Juniors 1984-85. In this 1984-85 sample, using the Academic Ability high school composite score as the aptitude predictor variable, the results showed no statistically significant slope or intercept differences for the gender group members or the White and Black ethnic group members. Thus, Models 9 or 12, which contained only the unit vector and the Academic Ability composite score in the prediction equation, could be used in the prediction of General Math course grades obtained in 1984-85 by juniors.

Juniors 1985-86. At first, using this composite with this General Math sample was, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. Using the Academic Ability composite as the aptitude predictor variable resulted in statistically significant intercept differences for the gender group members. With an R^2 change of .028 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction equation for this sample. Thus, if a common

regression line using the Academic Ability composite were used in the prediction of General Math course grade, female juniors would be consistently underpredicted on the criterion while male juniors would be consistently overpredicted.

The results also showed no statistically significant slope or intercept differences between the White and Black ethnic group members regression lines. Thus, Model 12, containing the unit vector and the Academic Ability composite score, could be used in predicting General Math course grade for these individuals.

Seniors 1984-85. At first, using this composite with this General Math sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. The results showed no statistically significant slope or intercept differences for the gender group or ethnic group members. Again, Model 9 or 12 could be used in the prediction of General Math course grades obtained in 1984-85 by seniors.

Algebra

Freshmen 1984-85. Using the ASVAB Academic Ability composite as the predictor variable, the results showed statistically significant intercept differences in the prediction equations for the two gender groups with an R^2 change of .040 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, freshmen females would be consistently underpredicted in their Algebra grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the ethnic group members, which in this sample were defined as White and Nonwhite. Thus, Model 12, which contained only the unit vector and the Academic Ability composite score in the prediction equation, could be used in the prediction of Algebra course grade for freshmen during this school year.

Freshmen 1985-86. With the Academic Ability composite as the aptitude measure the results showed statistically significant intercept differences in the prediction equations for the two gender groups. These comparisons resulted in R^2 changes of .042 ($p \leq .001$) for the Model 8 vs Model 9 tests. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, freshmen females would be consistently underpredicted in their Algebra grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the ethnic group members, which in this sample were defined as White and Nonwhite. Thus, Model 12, which contained only the unit vector and the Academic Ability composite score in the prediction equation, could be used in the prediction of Algebra course grade for freshmen during this school year.

Sophomores 1984-85. In this 1984-85 sample, using the Academic Ability high school composite score as the aptitude predictor variable, the results showed statistically significant intercept differences for the gender group members. These tests resulted in an R^2 change of .026 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, sophomore females would be consistently underpredicted in their Algebra grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the ethnic group members, which in this sample were defined as White and Nonwhite. Thus, Model 12, which contained only the unit vector and the Academic Ability composite score in the prediction equation, could be used in the prediction of Algebra course grade for sophomores during this school year.

Sophomores 1985-86. Statistically significant intercept differences resulted between the male and female subgroups. With an R^2 change of .018 ($p \leq .001$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction system. Thus, if a common regression line using the Academic Ability composite were used in the prediction of Algebra course grade, female sophomores would be consistently underpredicted on the criterion while male sophomores would be consistently overpredicted.

This sample resulted in no statistically significant slope or intercept differences for the White and Nonwhite ethnic group members. Thus, Model 12, which contained only the unit vector and the Academic Ability composite score in the prediction equation, could be used in the prediction of Algebra course grade for these sophomores.

Juniors 1984-85. In this 1984-85 sample, using the Academic Ability high school composite score as the aptitude predictor variable, the results showed statistically significant intercept differences for the gender group members. These tests resulted in an R^2 change of .030 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, junior females would be consistently underpredicted in their Algebra grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the ethnic group members, which in this sample were defined as White and Black. Thus, Model 12, which contained only the unit vector and the Academic Ability composite score in the prediction equation, could be used in the prediction of Algebra course grade for juniors during this school year.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Using the Academic Ability composite as the aptitude predictor resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. Again, Model 9 or 12 could be used in the prediction of Algebra course grade for these juniors.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Using the Academic Ability composite in the equations resulted in statistically significant intercept differences for the gender group members. With an R^2 change of .039 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction system for these seniors. Using this composite, senior females would be consistently underpredicted in their Algebra grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the ethnic group members, which in this sample were defined as White and Nonwhite. Thus, Model 12 could be used in the prediction of Algebra course grades obtained by seniors in the 1984-85 school year.

Geometry

Freshmen 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. Again, using the Academic Ability composite in the prediction equations resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. Thus, Model 9 or 12 could be used in the prediction of Geometry course grades obtained by freshmen in the 1985-86 school year.

Sophomores 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. As in the Freshmen sample, using the Academic Ability composite resulted in no statistically significant slope of intercept differences for the gender group or ethnic group members. Model 9 or 12 could be used in the prediction of Geometry course grade for these sophomores.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. With the Academic Ability composite as the aptitude measure, the results showed statistically significant intercept differences for the gender group members. With an R^2 change of .024 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction equation for Geometry course grade for these sophomores. Using this composite, sophomore females would be consistently underpredicted in their Geometry grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

When the model comparisons were made for ethnic group differences, using the Academic Ability composite within the equations, the results showed statistically significant slope differences between the White and Black regression lines. The R^2 change for the Model 10 and Model 11 comparison was approximately .021 ($p \leq .01$), with Model 10 being the best prediction equation for this sample's Geometry grade. Thus, the change in the Geometry grade per unit change in the ASVAB Academic Ability composite was significantly different for these White and Black sophomores.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. With the Academic Ability composite as the aptitude measure, the results showed statistically significant intercept differences for the gender group members. With an R^2 change of .021 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction equation for Geometry course grade for these juniors. Using this composite, junior females would be consistently underpredicted in their Geometry grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Using the Academic Ability composite resulted in no statistically significant slope or intercept differences for the two ethnic groups. Again Model 12 could be used in the prediction of Geometry course grade for these juniors.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. As in some of the other Geometry samples, using the Academic Ability composite in the prediction equations resulted in no statistically significant slope or intercept differences for the gender group members. Model 9 could be used in the prediction of Geometry course grade for these juniors.

When the model comparisons were made for ethnic group differences, using the Academic Ability composite, the results showed statistically significant slope differences between the White and Nonwhite regression lines. The R^2 change for the Model 10 and Model 11 comparison was approximately .060 ($p \leq .01$), with Model 10 being the best prediction equation for this sample's Geometry grade. Thus, the change in the Geometry grade per unit change in the ASVAB Academic Ability composite was significantly different for these White and Nonwhite juniors.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. In this sample, the Academic Ability composite equations also resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. Again, Model 9 or 12 could be used in the prediction of Geometry course grade for these seniors.

Calculus

Juniors 1985-86. This was the only Calculus sample which possessed more than 50 cases, and only gender group differences were tested. The Academic Ability composite, as the predictor variable, resulted in no statistically significant slope or intercept differences for the gender group members. Model 9 could be used in the prediction of Calculus course grade for these individuals.

General Science

Freshmen 1984-85. Using the Academic Ability high school composite with this sample, the results showed no statistically significant differences between the Model 2 vs Model 4 comparison. Model 4 included the unit vector, the Academic Ability composite score, and the sex by ethnicity two-way interaction predictor variables, with ethnicity membership being defined as White, Black and Hispanic. With Model 4 as the best prediction equation for this sample's General Science grade, no differential validity was evidenced for the ethnicity by Academic Ability score two-way interaction variables or the sex by Academic Ability score two-way interaction variables.

Freshmen 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. Using the Academic Ability composite as the aptitude predictor variable resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. Model 9 or 12, which contained the unit vector and the Academic Ability composite score, could be used in the prediction of General Science course grades obtained by freshmen in 1985-86.

Sophomores 1984-85. In this 1984-85 sample, using the Academic Ability high school composite score as the aptitude predictor variable, the results showed statistically significant intercept differences for the gender group members. These tests resulted in an R^2 change of .040 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, sophomore females would be consistently underpredicted in their General Science grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the ethnic group members, which in this sample were defined as White and Nonwhite. Thus, Model 12, which contained only the unit vector and the Academic Ability composite score in the prediction equation, could be used in the prediction of General Science course grade for these sophomores during this school year.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. Again, using the Academic Ability composite as the aptitude aptitude measure resulted in no statistically significant slope or intercept differences for the

gender group or ethnic group members. Model 9 or 12 could be used in the prediction of General Science course grade for these sophomores.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. Using the Academic Ability composite within the prediction equation resulted in no statistically significant slope or intercept differences for the gender group members. Again, Model 9 could be used in the prediction of General Science course grade for these juniors.

With the Academic Ability composite as the aptitude measure, the results showed statistically significant intercept differences for the two ethnic subgroups. With an R^2 change of .055 ($p \leq .01$) for the Model 11 vs Model 12 comparison, Model 11 would be the best prediction equation for General Science course grade for these juniors. Using this composite, White juniors would be consistently underpredicted in their General Science grades if the common regression line were used, while Black juniors would be consistently overpredicted if a common regression line were used.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. This Academic Ability composite prediction equation resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. As in some of the previous samples, Model 9 or 12 could be used in the prediction of General Science course grades obtained by juniors in 1985-86.

Seniors 1984-85. This sample tested only for gender group differences. Using the Academic Ability composite equation resulted in no statistically significant slope or intercept differences for the gender groups. Thus, Model 9, which contained the unit vector and the ASVAB Academic Ability composite, could be used in the prediction of General Science course grade for these seniors.

Biology I - II

Freshmen 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. This Academic Ability composite equation also resulted in no statistically significant slope or intercept differences for the gender group

or ethnic group members. Again, Model 9 or 12 could be used in the prediction of Biology course grades obtained by freshmen in 1985-86.

Freshmen 1985-86. The use of this composite resulted in statistically significant intercept differences in the prediction equations for the two freshmen gender groups, with an R^2 change of .028 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the Academic Ability composite as the predictor variable, freshmen females would be consistently underpredicted in their Biology grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score, the results showed no statistically significant slope or intercept differences for White and Black freshmen, which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the Academic Ability composite score in the prediction equation, could be used in the prediction of Biology course grade for these freshmen.

Sophomores 1984-85. The use of this composite with this sample also resulted in statistically significant intercept differences in the prediction equations for the two sophomore gender groups, with an R^2 change of .018 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the Academic Ability composite as the predictor variable, sophomore females would be consistently underpredicted in their Biology grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the Academic Ability composite as the predictor composite, the results showed statistically significant intercept differences in the prediction equations for the White, Black and Hispanic ethnic groups, with an R^2 change of .008 ($p \leq .01$) for the Model 11 vs Model 12 comparison. Therefore, Model 11 would be the best prediction equation for this sample. Using the Academic Ability composite as the predictor variable, Black and Hispanic sophomores would be consistently underpredicted in their Biology grades if the common regression line were used, while White sophomores would be consistently overpredicted if a common regression line were used.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. These tests resulted statistically significant intercept differences between the gender group members and an R^2 change of .053 ($p \leq .01$)

for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, sophomore females would be consistently underpredicted in their Biology grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the three ethnic groups. Thus, Model 12, which contained only the unit vector and the Academic Ability composite score in the prediction equation, could be used in the prediction of Biology course grade for these sophomores during this school year.

Juniors 1984-85. The use of this composite resulted in statistically significant intercept differences in the prediction equations for the two junior gender groups, with an R^2 change of .032 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the Academic Ability composite as the predictor variable, junior females would be consistently underpredicted in their Biology grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score, the results showed no statistically significant slope or intercept differences for White and Nonwhite juniors, which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the Academic Ability composite score in the prediction equation, could be used in the prediction of Biology course grade for these juniors.

Juniors 1985-86. This sample tested only for gender group differences. Using the Academic Ability composite as the predictor variable resulted in statistically significant intercept differences for the gender groups. With an R^2 change of .042 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction equation of Biology course grade for these juniors. Using this composite, junior females would be consistently underpredicted in their Biology grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. The use of this Academic Ability composite in the equations resulted in statistically significant intercept differences for the gender and two ethnic group members. With R^2 changes of .032 and .040 ($p \leq .01$) for the Model 8 vs Model 9 and the Model 11 vs Model 12 comparisons, Models 8 and 11 would be the best prediction equations for these

seniors. Using this composite, senior females would be consistently underpredicted in their Biology grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used. Conversely, if a common regression line using the Academic Ability composite as the aptitude measure were used in the prediction of Biology course grade, White seniors would be consistently underpredicted on this criterion while Black seniors would be consistently overpredicted.

Chemistry I - II

Freshmen 1985-86. This sample tested only for gender group differences. Using the Academic Ability composite in the equations, the results showed no statistically significant slope or intercept differences for the gender groups. Thus, Model 9, which contained the unit vector and the ASVAB Academic Ability composite, could be used in the prediction of Chemistry course grades obtained by freshmen in this year.

Sophomores 1984-85. This sample also tested only for gender group differences. Again, with the Academic Ability composite in the equations, the results showed no statistically significant slope or intercept differences for the gender groups. Model 9 could be used in the prediction of Chemistry course grades obtained by these sophomores.

Sophomores 1985-86. This sample tested only for gender group differences. Using the Academic Ability composite as the predictor variable, the results indicated statistically significant intercept differences for the gender groups. With an R^2 change of .048 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction system of Chemistry course grade for these sophomores. Using this composite, sophomore females would be consistently underpredicted in their Chemistry grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The use of this Academic Ability composite in the equations resulted in statistically significant intercept differences for the gender and two ethnic group members. With R^2 changes of .047 and .019 ($p \leq .01$) for the Model 8 vs Model 9 and the Model 11 vs Model 12 comparisons, Models 8 and 11 would be the best prediction equations for these juniors. Using this composite, junior females would be consistently underpredicted in their Chemistry grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression

line were used. Conversely, if a common regression line using the Academic Ability composite as the aptitude measure were used in the prediction of Chemistry course grade, White juniors would be consistently underpredicted on this criterion, while Nonwhite juniors would be consistently overpredicted.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The use of this composite resulted in statistically significant intercept differences in the prediction equations for the two junior gender groups, with an R^2 change of .060 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the Academic Ability composite as the predictor variable, junior females would be consistently underpredicted in their Chemistry grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score, the results showed no statistically significant slope or intercept differences for White and Nonwhite juniors, which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the Academic Ability composite score in the prediction equation, could be used in the prediction of Biology course grade for these juniors.

Seniors 1984-85. As in the previous samples using the Academic Ability composite, the results showed no statistically significant slope or intercept differences for the gender group members. Model 9 could be used in the prediction of Chemistry course grades obtained by seniors during this school year.

When the model comparisons were made for ethnic group differences, using the Academic Ability composite, the results showed statistically significant slope differences between the White and Nonwhite regression lines. The R^2 change for the Model 10 and Model 11 comparison was approximately .038 ($p \leq .01$), with Model 10 being the best prediction equation for this sample's Chemistry grade. Thus, the change in the Chemistry grade per unit change in the ASVAB Academic Ability composite was significantly different for these White and Nonwhite seniors.

Physics I - II

Juniors 1985-86. This sample tested only for gender group differences. The use of this composite resulted in statistically significant intercept differences in the prediction equations for the two junior gender groups, with an R^2 change of .038 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the

Academic Ability composite as the predictor variable, junior females would be consistently underpredicted in their Physics grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Seniors 1984-85. This sample tested only for gender group differences. The Academic Ability composite equations again resulted in statistically significant intercept differences for the gender groups. An R^2 change of .042 ($p \leq .01$) for the Model 8 vs Model 9 comparison was evidenced; therefore, Model 8 would be the best prediction equation for this sample. Using the Academic Ability composite as the predictor variable, senior females would be consistently underpredicted in their Physics grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

Government and Civics

Freshmen 1984-85. This sample tested only for gender group differences. The Academic Ability composite prediction equations resulted in no statistically significant slope or intercept differences for the gender groups. Thus, Model 9, which contained the unit vector and the ASVAB Academic Ability composite, could be used in the prediction of Government course grades obtained by freshmen for this year.

Sophomore 1984-85. This sample also tested only for gender group differences. Again, using the Academic Ability composite as the predictor variable, the results showed no statistically significant slope or intercept differences for the gender groups. Model 9 could be used in the prediction of Government course grade for these sophomores.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The use of this Academic Ability composite in the equations resulted in statistically significant intercept differences for the gender and two ethnic group members. With R^2 changes of .030 and .019 ($p \leq .01$) for the Model 8 vs Model 9 and the Model 11 vs Model 12 comparisons, Models 8 and 11 would be the best prediction equations for these sophomores. Using this composite, sophomore females would be consistently underpredicted in their Government grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used. Conversely, if a common regression line using the Academic Ability composite as the aptitude measure were used in the prediction of Government course grade, White sophomores would be consistently underpredicted on this criterion while Hispanic sophomores would be consistently overpredicted.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. However, the use of this Academic Ability composite in the equations resulted in statistically significant intercept differences for only the gender subgroup. With R^2 changes of .020 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Models 8 would be the best prediction equation for these juniors. Using this composite, junior females would be consistently underpredicted in their Government grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score, the results showed no statistically significant slope or intercept differences for White and Nonwhite juniors, which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the Academic Ability composite score in the prediction equation, could be used in the prediction of Government course grade for these juniors.

Juniors 1985-86. This sample, using the Academic Ability high school composite score as the aptitude predictor variable, resulted in statistically significant intercept differences for the gender group members. With an R^2 change of .030 ($p \leq .001$) for the Model 8 vs Model 9 comparison, Model 8 was the best prediction equation for this sample. Using this composite, junior females would be consistently underpredicted in their Government grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score, the results showed no statistically significant slope or intercept differences for White and Black juniors, which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the Academic Ability composite score in the prediction equation, could be used in the prediction of Government course grade for these juniors.

Seniors 1984-85. Similar to the previous samples, this sample, using the Academic Ability composite score as the aptitude predictor variable, resulted in no statistically significant slope or intercept differences for the gender group members or the White and Black ethnic group members. Again, Models 9 or 12, which contained only the unit vector and the Academic Ability composite score in the prediction equation, could be used in the prediction of Government course grades for these seniors.

History

Freshmen 1984-85. The use of the ASVAB Academic Ability composite as the aptitude predictor variable showed statistically significant intercept differences in the prediction equations for the two freshmen gender groups and resulted in an R^2 change of .034 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, freshmen females would be consistently underpredicted in their History grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

The use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White, Black and Hispanic ethnic group members. Thus, Model 12, which contained only the unit vector and the Academic Ability composite score in the prediction equation, could be used in the prediction of History course grades obtained by freshmen during this school year.

Freshmen 1985-86. This sample, using the Academic Ability high school composite score as the aptitude predictor variable, resulted in statistically significant intercept differences in the prediction equations for the two freshmen gender groups and resulted in an R^2 change of .009 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, freshmen females would be consistently underpredicted in their History grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

The use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Black ethnic group members. Thus, Model 12, which contained only the unit vector and the Academic Ability composite score in the prediction equation, could be used in the prediction of History course grades obtained by freshmen during this school year.

Sophomores 1984-85. Using the Academic Ability high school composite score as the aptitude predictor variable, the results showed statistically significant intercept differences in the prediction equations for the two sophomore gender groups and resulted in an R^2 change of .020 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, sophomore females would be consistently underpredicted in their History grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

The use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Black ethnic group members. Thus, Model 12, which contained only the unit vector and the Academic Ability composite score in the prediction equation, could be used in the prediction of History course grades obtained by sophomores during this school year.

Sophomores 1985-86. The use of this composite resulted in statistically significant intercept differences in the prediction equations for the gender groups, with an R^2 change of .032 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the Academic Ability composite as the predictor variable, sophomore females would be consistently underpredicted in their History grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

When the model comparisons were made for ethnic group differences, using the Academic Ability composite, the results showed statistically significant slope differences between the White, Black and Hispanic regression lines. The R^2 change for the Model 10 and Model 11 comparison was approximately .009 ($p \leq .001$), with Model 10 being the best prediction equation for this sample's History grade. Thus, the change in the History grade per unit change in the ASVAB Academic Ability composite was significantly different for these White, Black and Hispanic sophomores.

Juniors 1984-85. Like the 1985-86 freshmen sample, this sample, using the Academic Ability high school composite score as the aptitude predictor variable, resulted in statistically significant intercept differences in the prediction equations for the two junior gender groups and resulted in an R^2 change of .033 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, junior females would be consistently underpredicted in their History grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Again, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Black ethnic group members. Thus, Model 12, which contained only the unit vector and the Academic Ability composite score in the prediction equation, could be used in the prediction of History course grades obtained by juniors during this school year.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including

the gender variables in the equations. Using the Academic Ability high school composite score as the aptitude predictor variable, results showed statistically significant intercept differences in the prediction equations for the two junior gender groups and resulted in an R^2 change of .040 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, junior females would be consistently underpredicted in their History grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Again, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Black ethnic group members. Thus, Model 12, which contained only the unit vector and the Academic Ability composite score in the prediction equation, could be used in the prediction of History course grades obtained by juniors during this school year.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. The use of the Academic Ability composite in the prediction equations resulted in no statistically significant slope or intercept differences for the gender group members. Model 9 could be used in the prediction of History course grade for these seniors.

Statistically significant intercept differences resulted between the White and Black ethnic subgroups. With an R^2 change of .026 ($p \leq .01$) for the Model 11 vs Model 12 comparison, Model 11 would be the best prediction system. Thus, if a common regression line using the Academic Ability composite as the aptitude measure were used in the prediction of History course grade, White seniors would be consistently underpredicted on this criterion while Black seniors would be consistently overpredicted.

Foreign Language

Freshmen 1984-85. The use of the ASVAB Academic Ability composite as the aptitude predictor variable showed statistically significant intercept differences in the prediction equations for the two freshmen gender groups and resulted in an R^2 change of .057 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the aptitude predictor variable, freshmen females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

The use of this ASVAB composite score in the equations also resulted in statistically significant intercept differences in the prediction equations for the White, Black and Hispanic ethnic groups and resulted in an R^2 change of .021 ($p \leq .01$) for the Model 11 vs Model 12 comparison. Therefore, Model 11 would be the best prediction equation for this sample. Using this composite as the aptitude predictor variable, White and Hispanic freshmen would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while Black freshmen would be consistently overpredicted if a common regression line were used.

Freshmen 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. Using the Academic Ability composite in the prediction equations the results showed statistically significant intercept differences in the prediction equations for the two freshmen gender groups and resulted in an R^2 change of .049 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the aptitude predictor variable, freshmen females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

When testing for ethnic group differences, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White, Black and Hispanic ethnic group members. Thus, Model 12, which contained only the unit vector and the Academic Ability composite score in the prediction equation, could be used in the prediction of Foreign Language course grades obtained by freshmen during this school year.

Sophomores 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The Academic Ability prediction equations showed statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .085 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Foreign Language grade. Thus, using this composite as the aptitude measure, sophomore females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

When the model comparisons were made for ethnic group differences, the use of this Academic Ability composite in the prediction equations also resulted in statistically significant intercept differences for the ethnic group members. With an R^2 change of .012 ($p \leq .01$) for the Model 11 vs Model 12 comparison, Model 11 would be the best prediction system for these sophomores' Foreign Language course grade. Again, using this composite as the aptitude measure, White and Hispanic sophomores would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while Black sophomores would be consistently overpredicted if a common regression line were used.

Sophomores 1985-86. Using the ASVAB Academic Ability composite as the aptitude predictor in the equations showed statistically significant intercept differences in the prediction equations for the two sophomore gender groups and resulted in an R^2 change of .059 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite sophomore females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

When testing for ethnic group differences, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Nonwhite ethnic group members. Thus, Model 12, which contained only the unit vector and the Academic Ability composite score in the prediction equation, could be used in the prediction of Foreign Language course grades obtained by sophomores during this school year.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The use of the Academic Ability composite as a predictor measure showed statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .078 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Foreign Language grade. Thus, using this predictor composite, junior females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

When the model comparisons were made for ethnic group differences, the Academic Ability predictor composite also resulted in statistically significant intercept differences for the ethnic group members. The R^2 change for the Model 11 vs

Model 12 comparison was .020 ($p \leq .01$); therefore, Model 11 would be the best prediction equation for these juniors' Foreign Language course grade. Using this composite White and Hispanic juniors would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while Black juniors would be consistently overpredicted if a common regression line were used.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The Academic Ability prediction equations resulted in statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .047 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Foreign Language grade. Thus, using this predictor composite, junior females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

When testing for ethnic group differences, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Hispanic ethnic group members. Thus, Model 12, which contained only the unit vector and the Academic Ability composite score in the prediction equation, could be used in the prediction of Foreign Language course grades obtained by juniors during this school year.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The Academic Ability composite prediction equations resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. Model 9 or 12 could be used in the prediction of Foreign Language course grade for these individuals.

Secretary and Office Education

Juniors 1985-86. This sample tested only for White and Nonwhite ethnic group differences. Using the Academic Ability composite as the aptitude predictor variable, the results showed no statistically significant slope or intercept differences for the ethnic groups. Thus, Model 12, which contained the unit vector and the ASVAB Academic Ability composite, could be used in the prediction of this course grade for these juniors.

Seniors 1984-85. This sample tested only for White and Nonwhite ethnic group differences. Using the Academic Ability composite prediction equations the results showed no statistically significant slope or intercept differences for the gender groups. Thus, Model 12, which contained the unit vector and the ASVAB Academic Ability composite, could be used in the prediction of Secretary and Office course grades obtained by these seniors.

Typing and Word Processing

Freshmen 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The Academic Ability composite prediction equations resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. Model 9 or 12 could be used in the prediction of Typing course grade for these freshmen.

Freshmen 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The Academic Ability prediction equations resulted in statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .033 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Typing grade. Thus, using this predictor composite, freshmen females would be consistently underpredicted in their Typing grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

When testing for ethnic group differences, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Hispanic ethnic group members. Thus, Model 12, which contained only the unit vector and the Academic Ability composite score in the prediction equation, could be used in the prediction of Typing course grades obtained by freshmen during this school year.

Sophomores 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The results again showed statistically significant intercept differences between the male and female regression lines. The R^2

change for the Model 8 and Model 9 comparison was approximately .043 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Typing grade. Thus, using this predictor composite, sophomore females would be consistently underpredicted in their Typing grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Again, when testing for ethnic group differences, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White, Black and Hispanic ethnic group members. Thus, Model 12, which contained only the unit vector and the Academic Ability composite score in the prediction equation, could be used in the prediction of Typing course grades obtained by sophomores during this school year.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. Using the Academic Ability composite as the aptitude predictor variable, the results showed no statistically significant slope or intercept differences for the gender group or ethnic group members. Again, Model 9 or 12 could be used in the prediction of Typing course grade for these sophomores.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. As in the sophomore 1984-85 sample, the results showed statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .064 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Typing grade. Thus, using this predictor composite, junior females would be consistently underpredicted in their Typing grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Again, when testing for ethnic group differences, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Black ethnic group members. Thus, Model 12, which contained only the unit vector and the Academic Ability composite

score in the prediction equation, could be used in the prediction of Typing course grades obtained by juniors during this school year.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. As in the previous sample, the results showed statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .044 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Typing grade. Thus, using this predictor composite, junior females would be consistently underpredicted in their Typing grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Again, when testing for ethnic group differences, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Nonwhite ethnic group members. Thus, Model 12, which contained only the unit vector and the Academic Ability composite score in the prediction equation, could be used in the prediction of Typing course grades obtained by juniors during this school year.

Seniors 1984-85. This sample tested only for gender group differences. The Academic Ability composite equations resulted in statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .028 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Typing grade. Thus, using this predictor composite, senior females would be consistently underpredicted in their Typing grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

Accounting and Bookkeeping

Sophomores 1985-86. This sample tested only for gender group differences. The use of the ASVAB Academic Ability composite as the predictor variable showed statistically significant intercept differences in the prediction equations for the two sophomore gender groups and resulted in an R^2 change of .055 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, sophomore females would be consistently underpredicted in their Accounting grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Juniors 1984-85. This sample also tested only for gender group differences. Again, using the Academic Ability composite prediction equations, the results showed statistically significant intercept differences in the prediction equations for the two junior gender groups and resulted in an R^2 change of .092 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, junior females would be consistently underpredicted in their Accounting grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Juniors 1985-86. This sample tested for gender group differences. As in the previous sample, using the Academic Ability composite prediction equations, the results showed statistically significant intercept differences in the prediction equations for the two junior gender groups and resulted in an R^2 change of .034 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, junior females would be consistently underpredicted in their Accounting grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Seniors 1984-85. Like the junior samples, this sample tested for gender group differences. Using the Academic Ability composite prediction equations, the results showed statistically significant intercept differences in the prediction equations for the two gender groups and resulted in an R^2 change of .035 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, senior females would be consistently underpredicted in their Accounting grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

Home Economics

Freshmen 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. The prediction equations with the ASVAB Academic Ability composite showed statistically significant intercept differences in the prediction equations for the two freshmen gender groups and resulted in an R^2 change of .045 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, freshmen females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB Academic Ability composite, the results showed statistically significant intercept differences in the prediction equations for the two ethnic groups. An R^2 change of .072 ($p \leq .01$) for the Model 11 vs Model 12 comparison was evidenced; and Model 11 could be used in the prediction of Home Economics course grade for these freshmen. Using this predictor composite, freshmen Whites would be consistently underpredicted in their Home Economics grades if the common regression line were used, while freshmen Blacks would be consistently overpredicted if a common regression line were used.

Freshmen 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Using the Academic Ability composite as a predictor variable, the results showed statistically significant intercept differences for these two freshmen gender groups and resulted in an R^2 change of .061 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the aptitude measure, freshmen females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB Academic Ability composite, the results showed no statistically significant slope or intercept differences in the prediction equations for the two ethnic groups. Model 12 could be used in the prediction of Home Economics course grade for these freshmen.

Sophomores 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The prediction equations with the ASVAB Academic Ability composite showed statistically significant intercept differences in the prediction equations for the two gender groups and resulted in an R^2 change of .060 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, sophomore females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB Academic Ability composite, the results showed statistically significant intercept differences in the prediction equations for the two ethnic groups. An R^2 change of .032

($p \leq .01$) for the Model 11 vs Model 12 comparison was evidenced; and Model 11 could be used in the prediction of Home Economics course grade for these sophomores. Using this predictor composite, White sophomores would be consistently underpredicted in their Home Economics grades if the common regression line were used, while Nonwhite sophomores would be consistently overpredicted if a common regression line were used.

<u>Sophomores 1985-86</u>. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The use of the Academic Ability composite prediction equations resulted in statistically significant intercept differences for the gender group members. The ASVAB Academic Ability composite showed statistically significant intercept differences in the prediction equations for the two sophomore gender groups and resulted in an R^2 change of .062 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, sophomore females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB Academic Ability composite, the results showed no statistically significant slope or intercept differences in the prediction equations for the two ethnic groups. Model 12 could be used in the prediction of Home Economics course grade for these sophomores.

<u>Juniors 1984-85</u>. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The use of the Academic Ability composite prediction equations resulted in statistically significant intercept differences for the gender group members. The ASVAB Academic Ability composite showed statistically significant intercept differences in the prediction equations for the two junior gender groups and resulted in an R^2 change of .031 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, junior females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB Academic Ability composite, the results showed no

statistically significant slope or intercept differences in the prediction equations for the two ethnic groups. Model 12 could be used in the prediction of Home Economics course grade for these juniors.

Juniors 1985-86. As in the previous junior sample, at first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Again, this sample, using the Academic Ability composite equations, resulted in statistically significant intercept differences for the gender group members. An R^2 change of .111 ($p \leq .01$) for the Model 8 vs Model 9 comparison was evidenced; therefore, Model 8 would be the best prediction equation for this sample. Using this predictor composite junior females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB Academic Ability composite, the results indicated no statistically significant slope or intercept differences in the prediction equations for the two ethnic groups. Model 12 could be used in the prediction of Home Economics course grade for these juniors.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. As in the junior 1985-86 sample, the Academic Ability composite equations resulted in statistically significant intercept differences for the gender group members. An R^2 change of .042 ($p \leq .01$) was obtained for the Model 8 vs Model 9 comparison; therefore, Model 8 would be the best prediction equation for this sample. Using this composite senior females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

The tests for ethnic group differences were conducted using the ASVAB Academic Ability composite, and the results showed no statistically significant slope or intercept differences in the prediction equations for the two ethnic groups. Model 12 could be used in the prediction of Home Economics course grade for these seniors.

Computer Programming

Sophomores 1985-86. This sample tested only for gender group differences. Using the Academic Ability composite as a predictor variable, the results showed statistically significant intercept differences for the gender group members. An R^2 change of .076 ($p \leq .01$) was obtained for the Model 8 vs Model 9 comparison; therefore, Model 8 would be the best prediction equation for this sample. Using this composite sophomore females would be consistently underpredicted in their Computer Programming grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Juniors 1984-85. Like the sophomore sample, this sample also tested for gender group differences. Again, the Academic Ability composite equations resulted in no statistically significant slope or intercept differences for the gender groups. Thus, Model 9, which contained the unit vector and the ASVAB Academic Ability composite, could be used in the prediction of Computer Programming course grades obtained by juniors for this year.

Juniors 1985-86. Collapsing across the ethnic groups, the model comparisons tested for gender group differences. Using the Academic Ability predictor composite, the results showed statistically significant intercept differences in the prediction equations for the two junior gender groups and resulted in an R^2 change of .113 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite junior females would be consistently underpredicted in their Computer Programming grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Seniors 1984-85. As in the previous Computer Programming samples, this sample tested for gender group differences. The Academic Ability composite prediction equations resulted in no statistically significant slope or intercept differences for the gender groups. Thus, Model 9, which contained the unit vector and the ASVAB Academic Ability composite, could be used in the prediction of Computer Programming course grades obtained by seniors for this year.

Table 5. Summary of Equity Findings for Prediction of High School Course Grades by Academic Ability High School Composite

Course		Sex	Ethnicity	Sex*Ethnicity
English I-IV				
Fresh	84-85	NS	NS	I
Fresh	85-86	I	S	NS
Soph	84-85	S	E	NS
Soph	85-86	S	I	NS
Jr	84-85	S	E	NS
Jr	85-86	I	E	NS
Sr	84-85	I	E	NS
General Math				
Fresh	84-85	I	E	NS
Fresh	85-86	E	E	NS
Soph	84-85	E	E	NS
Soph	85-86	I	E	NS
Jr	84-85	E	E	NS
Jr	85-86	I	E	NS
Sr	84-85	E	E	NS
Algebra				
Fresh	84-85	I	E	NS
Fresh	85-86	I	E	NS
Soph	84-85	I	E	NS
Soph	85-86	I	E	NS
Jr	84-85	I	E	NS
Jr	85-86	E	E	NS
Sr	84-85	I	E	NS
Geometry				
Fresh	85-86	E	E	NS
Soph	84-85	E	E	NS
Soph	85-86	I	S	NS
Jr	84-85	I	E	NS
Jr	85-86	E	S	NS
Sr	84-85	E	E	NS
Calculus				
Jr	85-86	E	NT	NS
General Science				
Fresh	84-85	NS	NS	I
Fresh	85-86	E	E	NS
Soph	84-85	I	E	NS
Soph	85-86	E	E	NS
Jr	84-85	E	I	NS
Jr	85-86	E	E	NS
Sr	84-85	E	NT	NS

Note. NS = Not significant; I = Intercept differences; S = Slope differences; E = Equitable test, no significant slope or intercept differences found; NT = Not tested due to small sample sizes.

Table 5. (Continued)

Course		Sex	Ethnicity	Sex*Ethnicity
Biology				
Fresh	84-85	E	E	NS
Fresh	85-86	I	E	NS
Soph	84-85	I	I	NS
Soph	85-86	I	E	NS
Jr	84-85	I	E	NS
Jr	85-86	I	NT	NS
Sr	84-85	I	I	NS
Chemistry				
Fresh	85-86	E	NT	NS
Soph	84-85	E	NT	NS
Soph	85-86	I	NT	NS
Jr	84-85	I	I	NS
Jr	85-86	I	E	NS
Sr	84-85	E	S	NS
Physics				
Jr	85-86	I	NT	NS
Sr	84-85	I	NT	NS
Government				
Fresh	84-85	E	NT	NS
Soph	84-85	E	NT	NS
Soph	85-86	I	I	NS
Jr	84-85	I	E	NS
Jr	85-86	I	E	NS
Sr	84-85	E	E	NS
History				
Fresh	84-85	I	E	NS
Fresh	85-86	I	E	NS
Soph	84-85	I	E	NS
Soph	85-86	I	S	NS
Jr	84-85	I	E	NS
Jr	85-86	I	E	NS
Sr	84-85	E	I	NS
Foreign Language				
Fresh	84-85	I	I	NS
Fresh	85-86	I	E	NS
Soph	84-85	I	I	NS
Soph	85-86	I	E	NS
Jr	84-85	I	I	NS
Jr	85-86	I	E	NS
Sr	84-85	E	E	NS
Secretary & Ofc				
Jr	85-86	NT	E	NS
Sr	84-85	NT	E	NS

Note. NS = Not significant; I = Intercept differences; S = Slope differences; E = Equitable test, no significant slope or intercept differences found; NT = Not tested due to small sample sizes.

Table 5. (Concluded)

Course	Sex	Ethnicity	Sex*Ethnicity
Typing			
Fresh 84-85	E	E	NS
Fresh 85-86	I	E	NS
Soph 84-85	I	E	NS
Soph 85-86	E	E	NS
Jr 84-85	I	E	NS
Jr 85-86	I	E	NS
Sr 84-85	I	NT	NS
Accounting			
Soph 85-86	I	NT	NS
Jr 84-85	I	NT	NS
Jr 85-86	I	NT	NS
Sr 84-85	I	NT	NS
Home Economics			
Fresh 84-85	I	I	NS
Fresh 85-86	I	E	NS
Soph 84-85	I	I	NS
Soph 85-86	I	E	NS
Jr 84-85	I	E	NS
Jr 85-86	I	E	NS
Sr 84-85	I	E	NS
Computer Program			
Soph 85-86	I	NT	NS
Jr 84-85	E	NT	NS
Jr 85-86	I	NT	NS
Sr 84-85	E	NT	NS

Note. NS = Not significant; I = Intercept differences; S = Slope differences; E = Equitable test, no significant slope or intercept differences found; NT = Not tested due to small sample sizes.

Verbal High School Composite

English I - IV

Freshmen 1984-85. Using the Verbal high school composite with this sample, the results showed statistically significant differences between the Model 2 vs Model 4 and the Model 2 vs Model 5 comparisons. However, the Model 2 vs Model 6 comparsion showed that these two models were not significantly different. Model 6 included the unit vector, the Verbal score by sex two-way interaction predictor variables, and the sex by ethnicity two-way interaction predictor variables. With Model 6 as the best prediction equation for this sample's English grade, no differential validity was evidenced for the ethnicity by Verbal score two-way interaction variables, with ethnicity being defined as White, Black and Hispanic group membership.

Freshmen 1985-86. This composite showed statistically significant intercept differences in the prediction equations for the two freshmen gender groups and resulted in an R^2 change of .036 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the Verbal composite as the predictor variable freshmen

females would be consistently underpredicted in their English grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

When the model comparisons were made for ethnic group differences, using this ASVAB composite resulted in no statistically significant slope or intercept differences among the White, Black and Hispanic regression lines. Thus, Model 12, which contained only the unit vector and the Verbal composite score in the prediction equation, could be used in the prediction of English course grade for these freshmen.

Sophomores 1984-85. When the model comparisons were made for gender group differences, using the Verbal composite resulted in statistically significant slope differences between the male and female regression lines. The R^2 change for the Model 7 and Model 8 comparison was approximately .010 ($p \leq .001$), with Model 7 being the best prediction equation for this groups English grade. Thus, the change in the English grade per unit change in the ASVAB Verbal composite was significantly different for this year's sophomore males and females.

Using the Verbal composite score as the aptitude measure resulted in no statistically significant slope or intercept differences for White, Black and Hispanic sophomores which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the Verbal composite score in the prediction equation, could be used in the prediction of English course grade for these sophomores.

Sophomores 1985-86. The model comparisons for gender group differences using the Verbal composite showed statistically significant slope differences between the male and female regression lines, with Model 7 as the prediction equation to be used for this sample. The R^2 change for the Model 7 and Model 8 comparison was approximately .009 ($p \leq .001$). Thus, the change in the English grade per unit change in the ASVAB Verbal composite was significantly different for these sophomore males and females.

Using the Verbal composite score as the aptitude measure resulted in no statistically significant slope or intercept differences for White, Black and Hispanic sophomores, which were the ethnic groups defined in the prediction equations. Thus, Model 12 could be used in the prediction of English course grade for these sophomores.

Juniors 1984-85. When the model comparisons were made for gender group differences, using the Verbal high school composite resulted in statistically significant slope differences between the male and female regression lines. The R^2 change for the Model 7 and Model 8 comparison was approximately .009 ($p \leq .001$), with Model 7 being the best prediction equation for this group's

English grade. Thus, the change in the English grade per unit change in the Verbal high school composite was significantly different for these junior males and females.

Using this ASVAB composite score as the aptitude predictor variable resulted in no statistically significant slope or intercept differences for White, Black and Hispanic juniors. Thus, Model 12, which contained only the unit vector and the Verbal composite score in the prediction equation, could be used in the prediction of English course grade for these individuals.

Juniors 1985-86. As in the 1984-85 school year, using the Verbal composite in the equations showed statistically significant slope differences between the male and female regression lines. The R^2 change for the Model 7 and Model 8 comparison was approximately .008 ($p \leq .001$), with Model 7 being the best prediction equation for English grade. Thus, the change in the English grade per unit change in the Verbal composite was also significantly different for these junior males and females.

Again, using the Verbal composite score resulted in no statistically significant slope or intercept differences for the ethnic groups, with this sample including only White, Black and Hispanic individuals. Thus, Model 12, which contained only the unit vector and the Verbal composite score in the prediction equation, could be used in the prediction of English course grade for these juniors.

Seniors 1984-85. The ASVAB Verbal composite as the aptitude predictor showed statistically significant intercept differences in the prediction equations for the two senior gender groups and resulted in an R^2 change of .029 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the Verbal composite as the aptitude predictor variable senior females would be consistently underpredicted in their English grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the White, Black and Hispanic ethnic group members. Model 12 could be used in the prediction of English course grades obtained by seniors during this school year.

General Math

Freshmen 1984-85. This sample, using the Verbal high school composite score as the aptitude predictor variable, resulted in no statistically significant slope or intercept differences for the gender group members or the White, Black and Hispanic ethnic group members. Models 9 or 12, containing only the unit vector

and the Verbal composite score in the prediction equation, could be used in the prediction of General Math course grade for these freshmen.

Sophomores 1984-85. This sample also resulted in no statistically significant slope or intercept differences for the gender group members or the White, Black and Hispanic ethnic group members. Models 9 or 12, which contained only the unit vector and the Verbal composite score in the prediction equation, could be used in the prediction of General Math course grades obtained during this year by sophomores.

Sophomores 1985-86. This sample, using the Verbal composite in the equations, showed statistically significant intercept differences between the male and female gender subgroups. With an R^2 change of .038 ($p \leq .001$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction system. Thus, if a common regression line using the Verbal composite were used in the prediction of General Math course grade, female sophomores would be consistently underpredicted on the criterion while male sophomores would be consistently overpredicted.

The results also showed no statistically significant slope or intercept differences between the White and Black ethnic group members regression lines. Thus, Model 12, containing the unit vector and the Verbal composite score, could be used in predicting General Math course grade for these individuals.

Juniors 1984-85. In this 1984-85 sample, using the Verbal high school composite score as the aptitude predictor variable, the results showed no statistically significant slope or intercept differences for the gender group members or the White and Black ethnic group members. Thus, Models 9 or 12, which contained only the unit vector and the Verbal composite score in the prediction equation, could be used in the prediction of General Math course grades obtained in 1984-85 by juniors.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. Using the Verbal composite as the aptitude predictor variable resulted in statistically significant intercept differences for the gender group members. With an R^2 change of .028 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction equation for this sample. Thus, if a common regression line using the Verbal composite were used in the prediction of General Math course grade, female juniors would be consistently underpredicted on the criterion while male juniors would be consistently overpredicted.

The results also showed no statistically significant slope or intercept differences between the White and Black ethnic group members regression lines. Thus, Model 12, containing the unit vector and the Verbal composite score, could be used in predicting General Math course grade for these individuals.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. The results showed no statistically significant slope or intercept differences for the gender group or ethnic group members. Again, Model 9 or Model 12 could be used in the prediction of General Math course grades obtained in 1984-85 by seniors.

Algebra

Freshmen 1984-85. Using the ASVAB Verbal composite as the predictor variable, the results showed statistically significant intercept differences in the prediction equations for the two gender groups with an R^2 change of .037 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, freshmen females would be consistently underpredicted in their Algebra grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the ethnic group members, which in this sample were defined as White and Nonwhite. Thus, Model 12, which contained only the unit vector and the Verbal composite score in the prediction equation, could be used in the prediction of Algebra course grade for freshmen during this school year.

Freshmen 1985-86. With the Verbal composite as the aptitude measure the results showed statistically significant intercept differences in the prediction equations for the two gender groups. These comparisons resulted in R^2 change of .036 ($p \leq .001$) for the Model 8 vs Model 9 tests. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, freshmen females would be consistently underpredicted in their Algebra grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the ethnic group members, which in this sample were defined as White and Nonwhite. Thus, Model 12, which contained only the

unit vector and the Verbal composite score in the prediction equation, could be used in the prediction of Algebra course grade for freshmen during this school year.

Sophomores 1984-85. In this 1984-85 sample, using the Verbal high school composite score as the aptitude predictor variable, the results showed statistically significant intercept differences for the gender group members. These tests resulted in an R^2 change of .023 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, sophomore females would be consistently underpredicted in their Algebra grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the ethnic group members, which in this sample were defined as White and Nonwhite. Thus, Model 12, which contained only the unit vector and the Verbal composite score in the prediction equation, could be used in the prediction of Algebra course grade for sophomores during this school year.

Sophomores 1985-86. In this sample, using the Verbal high school composite, the results showed no statistically significant slope or intercept differences for the gender group members or the White and Nonwhite ethnic group members. Thus, Models 9 or 12, which contained only the unit vector and the Verbal composite score in the prediction equation, could be used in the prediction of Algebra course grades obtained in 1985-86 sophomores.

Juniors 1984-85. In this 1984-85 sample, using the Verbal high school composite score as the aptitude predictor variable, the results showed statistically significant intercept differences for the gender group members. These tests resulted in an R^2 change of .028 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, junior females would be consistently underpredicted in their Algebra grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the ethnic group members, which in this sample were defined as White and Black. Thus, Model 12, which contained only the unit vector and the Verbal composite score in the prediction equation, could be used in the prediction of Algebra course grade for juniors during this school year.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White

and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Using the Verbal composite as the aptitude predictor resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. Again, Model 9 or Model 12 could be used in the prediction of Algebra course grade for these juniors.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Using the Verbal composite in the equations resulted in statistically significant intercept differences for the gender group members. With an R^2 change of .034 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction system for these seniors. Using this composite, senior females would be consistently underpredicted in their Algebra grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the ethnic group members, which in this sample were defined as White and Nonwhite. Thus, Model 12 could be used in the prediction of Algebra course grades obtained by seniors in the 1984-85 school year.

Geometry

Freshmen 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. Using the Verbal composite in the prediction equations resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. Thus, Model 9 or Model 12 could be used in the prediction of Geometry course grades obtained by freshmen in the 1985-86 school year.

Sophomores 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. As in the Freshmen sample, using the Verbal composite resulted in no statistically significant slope of intercept differences for the gender group or ethnic group members. Model 9 or Model 12 could be used in the prediction of Geometry course grade for these sophomores.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. With the Verbal composite as the aptitude measure, the results showed statistically significant intercept differences for the gender group members. With an R^2 change of .020 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction equation for Geometry course grade for these sophomores. Using this composite, sophomore females would be consistently underpredicted in their Geometry grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

When the model comparisons were made for ethnic group differences, using the Verbal composite within the equations, the results showed statistically significant slope differences between the White and Black regression lines. The R^2 change for the Model 10 and Model 11 comparison was approximately .019 ($p \leq .01$), with Model 10 being the best prediction equation for this sample's Geometry grade. Thus, the change in the Geometry grade per unit change in the ASVAB Verbal composite was significantly different for these White and Black sophomores.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. With the Verbal composite as the aptitude measure, the results showed no statistically significant slope of intercept differences for the gender group or ethnic group members. Model 9 or Model 12 could be used in the prediction of Geometry course grade for these juniors.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. As in some of the other Geometry samples, using the Verbal composite in the prediction equations resulted in no statistically significant slope or intercept differences for the gender group members. Model 9 could be used in the prediction of Geometry course grade for these juniors.

When the model comparisons were made for ethnic group differences, using the Verbal composite, the results showed statistically significant intercept differences between the White and Nonwhite regression lines. The R^2 change for the Model 11 and Model 12 comparison was approximately .105 ($p \leq .01$), with Model 11 being the best prediction equation for this sample's Geometry grade. Thus, using this composite, White juniors would

be consistently underpredicted in their Geometry grades if the common regression line were used, while Nonwhite juniors would be consistently overpredicted if a common regression line were used.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. In this sample, the Verbal composite equations resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. Again, Model 9 or Model 12 could be used in the prediction of Geometry course grade for these seniors.

Calculus

Juniors 1985-86. This was the only Calculus sample which possessed more than 50 cases, and only gender group differences were tested. The Verbal composite, as the predictor variable, resulted in no statistically significant slope or intercept differences for the gender group members. Model 9 could be used in the prediction of Calculus course grade for these individuals.

General Science

Freshmen 1984-85. Using the Verbal high school composite with this sample, the results showed no statistically significant differences between the Model 2 vs Model 4 comparison. Model 4 included the unit vector, the Verbal composite score, and the sex by ethnicity two-way interaction predictor variables, with ethnicity membership being defined as White, Black and Hispanic. With Model 4 as the best prediction equation for this sample's General Science grade, no differential validity was evidenced for the ethnicity by Verbal score two-way interaction variables or the sex by Verbal score two-way interaction variables.

Freshmen 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. Using the Verbal composite as the aptitude predictor variable resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. Model 9 or Model 12, which contained the unit vector and the Verbal composite score, could be used in the prediction of General Science course grades obtained by freshmen in 1985-86.

Sophomores 1984-85. In this 1984-85 sample, using the Verbal high school composite score as the aptitude predictor variable, the results showed statistically significant intercept

differences for the gender group members. These tests resulted in an R^2 change of .038 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, sophomore females would be consistently underpredicted in their General Science grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the ethnic group members, which in this sample were defined as White and Nonwhite. Thus, Model 12, which contained only the unit vector and the Verbal composite score in the prediction equation, could be used in the prediction of General Science course grade for these sophomores during this school year.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. Again, using the Verbal composite as the aptitude aptitude measure resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. Model 9 or Model 12 could be used in the prediction of General Science course grade for these sophomores.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. Using the Verbal composite within the prediction equation resulted in no statistically significant slope or intercept differences for the gender group members. Again, Model 9 could be used in the prediction of General Science course grade for these juniors.

With the Verbal composite as the aptitude measure, the results showed statistically significant intercept differences for the two ethnic subgroups. With an R^2 change of .053 ($p \leq .01$) for the Model 11 vs Model 12 comparison, Model 11 would be the best prediction equation for General Science course grade for these juniors. Using this composite, White juniors would be consistently underpredicted in their General Science grades if the common regression line were used, while Black juniors would be consistently overpredicted if a common regression line were used.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. This Verbal

composite prediction equation resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. As in some of the previous samples, Model 9 or Model 12 could be used in the prediction of General Science course grades obtained by juniors in 1985-86.

Seniors 1984-85. This sample tested only for gender group differences. Using the Verbal composite equation resulted in no statistically significant slope or intercept differences for the gender groups. Thus, Model 9, which contained the unit vector and the ASVAB Verbal composite, could be used in the prediction of General Science course grade for these seniors.

Biology I - II

Freshmen 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. This Verbal composite equation also resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. Again, Model 9 or Model 12 could be used in the prediction of Biology course grades obtained by freshmen in 1984-85.

Freshmen 1985-86. The use of this composite resulted in statistically significant intercept differences in the prediction equations for the two freshmen gender groups, with an R^2 change of .029 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the Verbal composite as the predictor variable, freshmen females would be consistently underpredicted in their Biology grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score, the results showed no statistically significant slope or intercept differences for White and Black freshmen, which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the Verbal composite score in the prediction equation, could be used in the prediction of Biology course grade for these freshmen.

Sophomores 1984-85. Using the Verbal high school composite with this sample, the results showed statistically significant differences between the Model 2 vs Model 4 and the Model 2 vs Model 5 comparisons. However, the Model 2 vs Model 6 comparsion showed that these two models were not significantly different. Model 6 included the unit vector, the Verbal score by sex two-way interaction predictor variables, and the sex by ethnicity two-way interaction predictor variables. With Model 6 as the best

prediction equation for this sample's Biology grade, no differential validiy was evidenced for the ethnicity by Verbal score two-way interaction variables, with ethnicity being defined as White, Black and Hispanic group membership.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. These tests resulted statistically significant intercept differences between the gender group members and an R^2 change of .058 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, sophomore females would be consistently underpredicted in their Biology grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the three ethnic groups. Thus, Model 12, which contained only the unit vector and the Verbal composite score in the prediction equation, could be used in the prediction of Biology course grade for these sophomores during this school year.

Juniors 1984-85. The use of this composite resulted in statistically significant intercept differences in the prediction equations for the two junior gender groups, with an R^2 change of .030 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the Verbal composite as the predictor variable, junior females would be consistently underpredicted in their Biology grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score, the results showed no statistically significant slope or intercept differences for White and Nonwhite juniors, which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the Verbal composite score in the prediction equation, could be used in the prediction of Biology course grade for these juniors.

Juniors 1985-86. This sample tested only for gender group differences. Using the Verbal composite as the predictor variable resulted in statistically significant intercept differences for the gender groups. With an R^2 change of .033 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction ec iation of Biology course grade for these juniors. Using th.s composite, junior females would be

consistently underpredicted in their Biology grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. The use of this Verbal composite in the equations resulted in statistically significant intercept differences for the gender and two ethnic group members. With R^2 changes of .036 and .031 ($p \leq .01$) for the Model 8 vs Model 9 and the Model 11 vs Model 12 comparisons, Models 8 and 11 would be the best prediction equations for these seniors. Using this composite, senior females would be consistently underpredicted in their Biology grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used. Conversely, if a common regression line using the Verbal composite as the aptitude measure were used in the prediction of Biology course grade, White seniors would be consistently underpredicted on this criterion while Black seniors would be consistently overpredicted.

Chemistry I - II

Freshmen 1985-86. This sample tested only for gender group differences. Using the Verbal composite in the equations, the results showed no statistically significant slope or intercept differences for the gender groups. Thus, Model 9, which contained the unit vector and the ASVAB Verbal composite, could be used in the prediction of Chemistry course grades obtained by freshmen in this year.

Sophomores 1984-85. This sample tested only for gender group differences. Again, with the Verbal composite in the equations, the results showed no statistically significant slope or intercept differences for the gender groups. Model 9 could be used in the prediction of Chemistry course grades obtained by these sophomores.

Sophomores 1985-86. This sample tested only for gender group differences. Using the Verbal composite as the predictor variable, the results indicated statistically significant intercept differences for the gender groups. With an R^2 change of .043 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction system of Chemistry course grade for these sophomores. Using this composite, sophomore females would be consistently underpredicted in their Chemistry grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The use of this Verbal composite in the equations resulted in statistically significant intercept differences for the gender and two ethnic group members. With R^2 changes of .040 and .021 ($p \leq .01$) for the Model 8 vs Model 9 and the Model 11 vs Model 12 comparisons, Models 8 and 11 would be the best prediction equations for these juniors. Using this composite, junior females would be consistently underpredicted in their Chemistry grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used. Conversely, if a common regression line using the Verbal composite as the aptitude measure were used in the prediction of Chemistry course grade, White juniors would be consistently underpredicted on this criterion while Nonwhite juniors would be consistently overpredicted.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The use of this composite resulted in statistically significant intercept differences in the prediction equations for the two junior gender groups, with an R^2 change of .052 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the Verbal composite as the predictor variable, junior females would be consistently underpredicted in their Chemistry grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score, the results showed no statistically significant slope or intercept differences for White and Nonwhite juniors, which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the Verbal composite score in the prediction equation, could be used in the prediction of Chemistry course grade for these juniors.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Using the Verbal composite, the results showed no statistically significant slope or intercept differences for the gender or White and Nonwhite ethnic group members. Model 9 or Model 12 could be used in the prediction of Chemistry course grades obtained by seniors during this school year.

Physics I - II

Juniors 1985-86. This sample tested only for gender group differences. The use of this composite resulted in statistically significant intercept differences in the prediction equations for the two junior gender groups, with an R^2 change of .032 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the Verbal composite as the predictor variable, junior females would be consistently underpredicted in their Physics grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Seniors 1984-85. This sample tested only for gender group differences. The Verbal composite equations again resulted in statistically significant intercept differences for the gender groups. An R^2 change of .038 ($p \leq .01$) for the Model 8 vs Model 9 comparison was evidenced; therefore, Model 8 would be the best prediction equation for this sample. Using the Verbal composite as the predictor variable, senior females would be consistently underpredicted in their Physics grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

Government and Civics

Freshmen 1984-85. This sample tested only for gender group differences. The Verbal composite prediction equations resulted in no statistically significant slope or intercept differences for the gender groups. Thus, Model 9, which contained the unit vector and the ASVAB Verbal composite, could be used in the prediction of Government course grades obtained by freshmen for this year.

Sophomore 1984-85. This sample also tested only for gender group differences. Again, using the Verbal composite as the predictor variable, the results showed no statistically significant slope or intercept differences for the gender groups. Model 9 could be used in the prediction of Government course grade for these sophomores.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The use of this Verbal composite in the equations resulted in statistically significant intercept differences for the gender and two ethnic group members. With R^2 changes of .031 and .018 ($p \leq .01$) for the Model 8 vs Model 9 and the Model 11 vs Model 12 comparisons, Models 8 and 11 would be the best prediction equations for these sophomores. Using this composite, sophomore females would be consistently underpredicted in their Government grades if the

common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used. Conversely, if a common regression line using the Verbal composite as the aptitude measure were used in the prediction of Government course grade, White sophomores would be consistently underpredicted on this criterion while Hispanic sophomores would be consistently overpredicted.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. However, the use of this Verbal composite in the equations resulted in statistically significant intercept differences for only the gender subgroup. With R^2 change of .017 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction equation for these juniors. Using this composite, junior females would be consistently underpredicted in their Government grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score, the results showed no statistically significant slope or intercept differences for White and Nonwhite juniors, which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the Verbal composite score in the prediction equation, could be used in the prediction of Government course grade for these juniors.

Juniors 1985-86. This sample, using the Verbal high school composite score as the aptitude predictor variable, resulted in statistically significant intercept differences for the gender group members. With an R^2 change of .025 ($p \leq .001$) for the Model 8 vs Model 9 comparison, Model 8 was the best prediction equation for this sample. Using this composite, junior females would be consistently underpredicted in their Government grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score, the results showed no statistically significant slope or intercept differences for White and Black juniors, which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the Verbal composite score in the prediction equation, could be used in the prediction of Government course grade for these juniors.

Seniors 1984-85. Similar to the previous samples, this sample, using the Verbal composite score as the aptitude predictor variable, resulted in no statistically significant slope or intercept differences for the gender group members or the White and Black ethnic group members. Again, Models 9 or 12,

which contained only the unit vector and the Verbal composite score in the prediction equation, could be used in the prediction of Government course grades for these seniors.

History

Freshmen 1984-85. The use of the ASVAB Verbal composite as the aptitude predictor variable showed statistically significant intercept differences in the prediction equations for the two freshmen gender groups and resulted in an R^2 change of .031 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, freshmen females would be consistently underpredicted in their History grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

The use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White, Black and Hispanic ethnic group members. Thus, Model 12, which contained only the unit vector and the Verbal composite score in the prediction equation, could be used in the prediction of History course grades obtained by freshmen during this school year.

Freshmen 1985-86. This sample, using the Verbal high school composite score as the aptitude predictor variable, resulted in statistically significant intercept differences in the prediction equations for the two freshmen gender groups and resulted in an R^2 change of .009 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, freshmen females would be consistently underpredicted in their History grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

The use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Black ethnic group members. Thus, Model 12, which contained only the unit vector and the Verbal composite score in the prediction equation, could be used in the prediction of History course grades obtained by freshmen during this school year.

Sophomores 1984-85. Using the Verbal high school composite score as the aptitude predictor variable, the results showed statistically significant intercept differences in the prediction equations for the two sophomore gender groups and resulted in an R^2 change of .020 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, sophomore females would be consistently underpredicted in their

History grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

The use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Black ethnic group members. Thus, Model 12, which contained only the unit vector and the Verbal composite score in the prediction equation, could be used in the prediction of History course grades obtained by sophomores during this school year.

Sophomores 1985-86. The use of this composite resulted in statistically significant intercept differences in the prediction equations for the gender groups, with an R^2 change of .032 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the Verbal composite as the predictor variable, sophomore females would be consistently underpredicted in their History grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score, the results showed no statistically significant slope differences for White, Black and Hispanic sophomores, which were the ethnic groups defined in the prediction equations. With the R^2 change for the Model 10 and Model 11 comparison approximating .008 ($p \leq .001$), Model 10 would be the best prediction system for this sample. Thus, the change in History grade per unit change in the Verbal composite was significantly different for White, Black and Hispanic sophomores.

Juniors 1984-85. Like the 1985-86 freshmen sample, this sample, using the Verbal high school composite score as the aptitude predictor variable, resulted in statistically significant intercept differences in the prediction equations for the two junior gender groups and resulted in an R^2 change of .029 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, junior females would be consistently underpredicted in their History grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Again, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Black ethnic group members. Thus, Model 12, which contained only the unit vector and the Verbal composite score in the prediction equation, could be used in the prediction of History course grades obtained by juniors during this school year.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. Using the Verbal high school composite score as the aptitude predictor variable, results showed statistically significant intercept differences in the prediction equations for the two junior gender groups and resulted in an R^2 change of .033 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, junior females would be consistently underpredicted in their History grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Again, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Black ethnic group members. Thus, Model 12, which contained only the unit vector and the Verbal composite score in the prediction equation, could be used in the prediction of History course grades obtained by juniors during this school year.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. The use of the Verbal composite in the prediction equations resulted in no statistically significant slope or intercept differences for the gender group members. Model 9 could be used in the prediction of History course grade for these seniors.

Statistically significant intercept differences resulted between the White and Black ethnic subgroups. With an R^2 change of .026 ($p \leq .01$) for the Model 11 vs Model 12 comparison, Model 11 would be the best prediction system. Thus, if a common regression line using the Verbal composite as the aptitude measure were used in the prediction of History course grade, White seniors would be consistently underpredicted on this criterion while Black seniors would be consistently overpredicted.

Foreign Language

Freshmen 1984-85. After collapsing across ethnic groups and then collapsing across gender groups, the use of the ASVAB Verbal composite as the aptitude predictor variable showed statistically significant intercept differences in the prediction equations for the two freshmen gender groups. The results showed an R^2 change of .054 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this

sample. Using this composite as the aptitude predictor variable, freshmen females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

The use of this ASVAB composite score in the equations also resulted in statistically significant intercept differences in the prediction equations for the White, Black and Hispanic ethnic groups and resulted in an R^2 change of .021 ($p \leq .01$) for the Model 11 vs Model 12 comparison. Therefore, Model 11 would be the best prediction equation for this sample. Using this composite as the aptitude predictor variable, White and Hispanic freshmen would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while Black freshmen would be consistently overpredicted if a common regression line were used.

Freshmen 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. When the model comparisons were made for gender group differences, using the Verbal composite within the equations, the results showed statistically significant slope differences between the male and female regression lines. The R^2 change for the Model 7 and Model 8 comparison was approximately .008 ($p \leq .01$), with Model 7 being the best prediction equation for this sample's Foreign Language grade. Thus, the change in the Foreign Language grade per unit change in the ASVAB Verbal composite was significantly different for male and female freshmen.

When the model comparisons were made for ethnic group differences, using the Verbal composite within the equations, the results also showed statistically significant slope differences between the White, Black and Hispanic regression lines. The R^2 change for the Model 10 and Model 11 comparison was approximately .011 ($p \leq .01$), with Model 10 being the best prediction equation for this sample's Foreign Language grade. Thus, the change in the Foreign Language grade per unit change in the ASVAB Verbal composite was significantly different for these White, Black and Hispanic freshmen.

Sophomores 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The Verbal prediction equations showed statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .080 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Foreign Language grade.

Thus, using this composite as the aptitude measure, sophomore females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

When the model comparisons were made for ethnic group differences, the use of this Verbal composite in the prediction equations also resulted in statistically significant intercept differences for the ethnic group members. With an R^2 change of .010 ($p \leq .01$) for the Model 11 vs Model 12 comparison, Model 11 would be the best prediction system for these sophomores' Foreign Language course grade. Again, using this composite as the aptitude measure, White and Hispanic sophomores would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while Black sophomores would be consistently overpredicted if a common regression line were used.

Sophomores 1985-86. Using the ASVAB Verbal composite as the aptitude predictor in the equations showed statistically significant intercept differences in the prediction equations for the two sophomore gender groups and resulted in an R^2 change of .053 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite sophomore females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

The use of this ASVAB composite score in the prediction equations resulted in no statistically significant slope or intercept differences for the White and Nonwhite ethnic group members. Thus, Model 12, which contained only the unit vector and the Verbal composite score in the prediction equation, could be used in the prediction of Foreign Language course grades obtained by sophomores during this school year.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The use of the Verbal composite as a predictor measure showed statistically significant intercept differences between the male and female regression lines. The R^2 change ($p \leq .01$) for the Model 8 and Model 9 comparison was approximately .069, with Model 8 being the best prediction equation for this sample's Foreign Language grade. Thus, using this predictor composite, junior females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

When the model comparisons were made for ethnic group differences, the Verbal predictor composite also resulted in statistically significant intercept differences for the ethnic group members. The R^2 change for the Model 11 vs Model 12 comparison was .022 ($p \leq .01$); therefore, Model 11 would be the best prediction equation for these juniors' Foreign Language course grade. Using this composite White and Hispanic juniors would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while Black juniors would be consistently overpredicted if a common regression line were used.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The Verbal prediction equations resulted in statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .038 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Foreign Language grade. Thus, using this predictor composite, junior females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

When testing for ethnic group differences, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Hispanic ethnic group members. Thus, Model 12, which contained only the unit vector and the Verbal composite score in the prediction equation, could be used in the prediction of Foreign Language course grades obtained by juniors during this school year.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The Verbal composite prediction equations resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. Model 9 or Model 12 could be used in the prediction of Foreign Language course grade for these individuals.

Secretary and Office Education

Juniors 1985-86. This sample tested only for White and Nonwhite ethnic group differences. Using the Verbal composite as the aptitude predictor variable, the results showed no statistically significant slope or intercept differences for the

ethnic groups. Thus, Model 12, which contained the unit vector and the ASVAB Verbal composite, could be used in the prediction of this course grade for these juniors.

Seniors 1984-85. This sample tested only for White and Nonwhite ethnic group differences. Again, using the Verbal composite prediction equations the results showed no statistically significant slope or intercept differences for the ethnic groups. Thus, Model 12, which contained the unit vector and the ASVAB Verbal composite, could be used in the prediction of Secretary and Office course grades obtained by these seniors.

Typing and Word Processing

Freshmen 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The Verbal prediction equations resulted in statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .011 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Typing grade. Thus, using this predictor composite, freshmen females would be consistently underpredicted in their Typing grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

When testing for ethnic group differences, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White, Black and Hispanic ethnic group members. Thus, Model 12, which contained only the unit vector and the Verbal composite score in the prediction equation, could be used in the prediction of Typing course grades obtained by freshmen during this school year.

Freshmen 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The Verbal prediction equations resulted in statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .025 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Typing grade. Thus, using this predictor composite, freshmen females would be consistently underpredicted in their Typing grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

when testing for ethnic group differences, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Hispanic ethnic group members. Thus, Model 12, which contained only the unit vector and the Verbal composite score in the prediction equation, could be used in the prediction of Typing course grades obtained by freshmen during this school year.

Sophomores 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The results again showed statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .038 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Typing grade. Thus, using this predictor composite, sophomore females would be consistently underpredicted in their Typing grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Again, when testing for ethnic group differences, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White, Black and Hispanic ethnic group members. Thus, Model 12, which contained only the unit vector and the Verbal composite score in the prediction equation, could be used in the prediction of Typing course grades obtained by sophomores during this school year.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. Using the Verbal composite as the aptitude predictor variable, the results showed no statistically significant slope or intercept differences for the gender group or ethnic group members. Again, Model 9 or 12 could be used in the prediction of Typing course grade for these sophomores.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. As in the sophomore 1984-85 sample, the results showed statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .064 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Typing grade. Thus, using this predictor composite, junior females would be consistently underpredicted in

their Typing grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Again, when testing for ethnic group differences, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Black ethnic group members. Thus, Model 12, which contained only the unit vector and the Verbal composite score in the prediction equation, could be used in the prediction of Typing course grades obtained by juniors during this school year.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. As in the previous sample, the results showed statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .039 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Typing grade. Thus, using this predictor composite, junior females would be consistently underpredicted in their Typing grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Again, when testing for ethnic group differences, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Nonwhite ethnic group members. Thus, Model 12, which contained only the unit vector and the Verbal composite score in the prediction equation, could be used in the prediction of Typing course grades obtained by juniors during this school year.

Seniors 1984-85. This sample tested only for gender group differences. The Verbal composite equations resulted in statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .026 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Typing grade. Thus, using this predictor composite, senior females would be consistently underpredicted in their Typing grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

Accounting and Bookkeeping

Sophomores 1985-86. This sample tested only for gender group differences. The use of the ASVAB Verbal composite as the predictor variable showed statistically significant intercept differences in the prediction equations for the two sophomore gender groups and resulted in an R^2 change of .046 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be

the best prediction equation for this sample. Using this composite as the predictor variable, sophomore females would be consistently underpredicted in their Accounting grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Juniors 1984-85. This sample tested for gender group differences. Again, using the Verbal composite prediction equations, the results showed statistically significant intercept differences in the prediction equations for the two junior gender groups and resulted in an R^2 change of .085 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, junior females would be consistently underpredicted in their Accounting grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Juniors 1985-86. This sample tested for gender group differences. As in the previous sample, using the Verbal composite prediction equations, the results showed statistically significant intercept differences in the prediction equations for the two junior gender groups and resulted in an R^2 change of .034 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, junior females would be consistently underpredicted in their Accounting grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Seniors 1934-85. Like the junior sample, this sample tested for gender group differences. Using the Verbal composite prediction equations, the results showed statistically significant intercept differences in the prediction equations for the two gender groups and resulted in an R^2 change of .043 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, senior females would be consistently underpredicted in their Accounting grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

Home Economics

Freshmen 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. The prediction equations with the ASVAB Verbal composite showed statistically significant intercept differences in the prediction equations for the two freshmen gender groups and resulted in an R^2 change of .046 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model

8 would be the best prediction equation for this sample. Using this composite, freshmen females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB Verbal composite, the results showed statistically significant intercept differences in the prediction equations for the two ethnic groups. An R^2 change of .072 ($p \leq .01$) for the Model 11 vs Model 12 comparison was evidenced; and Model 11 could be used in the prediction of Home Economics course grade for these freshmen. Using this predictor composite, freshmen Whites would be consistently underpredicted in their Home Economics grades if the common regression line were used, while freshmen Blacks would be consistently overpredicted if a common regression line were used.

<u>Freshmen 1985-86</u>. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Using the Verbal composite as a predictor variable, the results showed statistically significant intercept differences for these two freshmen gender groups and resulted in an R^2 change of .066 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the aptitude measure, freshmen females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB Verbal composite, the results showed no statistically significant slope or intercept differences in the prediction equations for the two ethnic groups. Model 12 could be used in the prediction of Home Economics course grade for these freshmen.

<u>Sophomore 1984-85</u>. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The prediction equations with the ASVAB Verbal composite showed statistically significant intercept differences in the prediction equations for the two gender groups and resulted in an R^2 change of .058 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, sophomore females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB Verbal composite, the results showed statistically significant intercept differences in the prediction equations for the two ethnic groups. An R^2 change of .034 ($p \leq .01$) for the Model 11 vs Model 12 comparison was evidenced; and Model 11 could be used in the prediction of Home Economics course grade for these sophomores. Using this predictor composite, White sophomores would be consistently underpredicted in their Home Economics grades if the common regression line were used, while Nonwhite sophomores would be consistently overpredicted if a common regression line were used.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The use of the Verbal composite prediction equations resulted in statistically significant intercept differences for the gender group members and resulted in an R^2 change of .064 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, sophomore females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB Verbal composite, the results showed no statistically significant slope or intercept differences in the prediction equations for the two ethnic groups. Model 12 could be used in the prediction of Home Economics course grade for these sophomores.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The use of the Verbal composite prediction equations resulted in statistically significant intercept differences for the gender group members and resulted in an R^2 change of .028 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, junior females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB Verbal composite, the results showed no statistically significant slope or intercept differences in the prediction equations for the two ethnic groups. Model 12 could

be used in the prediction of Home Economics course grade for these juniors.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Again, this sample, using the Verbal composite equations, resulted in statistically significant intercept differences for the gender group members. An R^2 change of .103 ($p \leq .01$) for the Model 8 vs Model 9 comparison was evidenced; therefore, Model 8 would be the best prediction equation for this sample. Using this predictor composite junior females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB Verbal composite, the results indicated no statistically significant slope or intercept differences in the prediction equations for the two ethnic groups. Model 12 could be used in the prediction of Home Economics course grade for these juniors.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. As in the junior 1985-86 sample, the Verbal composite equations resulted in statistically significant intercept differences for the gender group members. An R^2 change of .038 ($p \leq .01$) was obtained for the Model 8 vs Model 9 comparison; therefore, Model 8 would be the best prediction equation for this sample. Using this composite senior females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

The tests for ethnic group differences were conducted using the ASVAB Verbal composite, and the results showed no statistically significant slope or intercept differences in the prediction equations for the two ethnic groups. Model 12 could be used in the prediction of Home Economics course grade for these seniors.

Computer Programming

Sophomores 1985-86. This sample tested only for gender group differences. Using the Verbal composite as a predictor variable, the results showed statistically significant intercept differences for the gender group members. An R^2 change of .077

($p \leq .01$) was obtained for the Model 8 vs Model 9 comparison; therefore, Model 8 would be the best prediction equation for this sample. Using this composite sophomore females would be consistently underpredicted in their Computer Programming grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Juniors 1984-85. Like the sophomore sample, this sample tested only for gender group differences. Again, the Verbal composite equations resulted in no statistically significant slope or intercept differences for the gender groups. Thus, Model 9, which contained the unit vector and the ASVAB Verbal composite, could be used in the prediction of Computer Programming course grades obtained by juniors for this year.

Juniors 1985-86. Collapsing across the ethnic groups, the model comparisons tested for gender group differences. Using the Verbal predictor composite, the results showed statistically significant intercept differences in the prediction equations for the two junior gender groups and resulted in an R^2 change of .100 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite junior females would be consistently underpredicted in their Computer Programming grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Seniors 1984-85. As in the previous Computer Programming samples, this sample tested for gender group differences. The Verbal composite prediction equations resulted in no statistically significant slope or intercept differences for the gender groups. Thus, Model 9, which contained the unit vector and the ASVAB Verbal composite, could be used in the prediction of Computer Programming course grades obtained by seniors for this year.

Table 6. Summary of Equity Findings for Prediction of High School Course Grades by Verbal High School Composite

Course		Sex	Ethnicity	Sex*Ethnicity
English I-IV				
Fresh	84-85	S	NS	I
Fresh	85-86	I	E	NS
Soph	84-85	S	E	NS
Soph	85-86	S	E	NS
Jr	84-85	S	E	NS
Jr	85-86	S	E	NS
Sr	84-85	I	E	NS

Note. NS = Not significant; I = Intercept differences; S = Slope differences; E = Equitable test, no significant slope or intercept differences found; NT = Not tested due to small sample sizes.

Table 6. (Continued)

Course		Sex	Ethnicity	Sex*Ethnicity
General Math				
Fresh	84-85	E	E	NS
Soph	84-85	E	E	NS
Soph	85-86	I	E	NS
Jr	84-85	E	E	NS
Jr	85-86	I	E	NS
Sr	84-85	E	E	NS
Algebra				
Fresh	84-85	I	E	NS
Fresh	85-86	I	E	NS
Soph	84-85	I	E	NS
Soph	85-86	E	E	NS
Jr	84-85	I	E	NS
Jr	85-86	E	E	NS
Sr	84-85	I	E	NS
Geometry				
Fresh	85-86	E	E	NS
Soph	84-85	E	E	NS
Soph	85-86	I	S	NS
Jr	84-85	E	E	NS
Jr	85-86	E	I	NS
Sr	84-85	E	E	NS
Calculus				
Jr	85-86	E	NT	NS
General Science				
Fresh	84-85	NS	NS	I
Fresh	85-86	E	E	NS
Soph	84-85	I	E	NS
Soph	85-86	E	E	NS
Jr	84-85	E	I	NS
Jr	85-86	E	E	NS
Sr	84-85	E	NT	NS
Biology				
Fresh	84-85	E	E	NS
Fresh	85-86	I	E	NS
Soph	84-85	S	NS	I
Soph	85-86	I	E	NS
Jr	84-85	I	E	NS
Jr	85-86	I	NT	NS
Sr	84-85	I	I	NS
Chemistry				
Fresh	85-86	E	NT	NS
Soph	84-85	E	NT	NS
Soph	85-86	I	NT	NS
Jr	84-85	I	I	NS
Jr	85-86	I	E	NS
Sr	84-85	E	E	NS
Physics				
Jr	85-86	I	NT	NS
Sr	84-85	I	NT	NS

Note. NS = Not significant; I = Intercept differences; S = Slope differences; E = Equitable test, no significant slope or intercept differences found; NT = Not tested due to small sample sizes.

Table 6. (Concluded)

Course		Sex	Ethnicity	Sex*Ethnicity
Government				
Fresh	84-85	E	NT	NS
Soph	84-85	E	NT	NS
Soph	85-86	I	I	NS
Jr	84-85	I	E	NS
Jr	85-86	I	E	NS
Sr	84-85	E	E	NS
History				
Fresh	84-85	I	E	NS
Fresh	85-86	I	E	NS
Soph	84-85	I	E	NS
Soph	85-86	I	S	NS
Jr	84-85	I	E	NS
Jr	85-86	I	E	NS
Sr	84-85	E	I	NS
Foreign Language				
Fresh	84-85	I	I	NS
Fresh	85-86	S	S	NS
Soph	84-85	I	I	NS
Soph	85-86	I	E	NS
Jr	84-85	I	I	NS
Jr	85-86	I	E	NS
Sr	84-85	E	E	NS
Secretary & Ofc				
Jr	85-86	NT	E	NS
Sr	84-85	NT	E	NS
Typing				
Fresh	84-85	I	E	NS
Fresh	85-86	I	E	NS
Soph	84-85	I	E	NS
Soph	85-86	E	E	NS
Jr	84-85	I	E	NS
Jr	85-86	I	E	NS
Sr	84-85	I	NT	NS
Accounting				
Soph	85-86	I	NT	NS
Jr	84-85	I	NT	NS
Jr	85-86	I	NT	NS
Sr	84-85	I	NT	NS
Home Economics				
Fresh	84-85	I	I	NS
Fresh	85-86	I	E	NS
Soph	84-85	I	I	NS
Soph	85-86	I	E	NS
Jr	84-85	I	E	NS
Jr	85-86	I	E	NS
Sr	84-85	I	E	NS
Computer Program				
Soph	85-86	I	NT	NS
Jr	84-85	E	NT	NS
Jr	85-86	I	NT	NS
Sr	84-85	E	NT	NS

Note. NS = Not significant; I = Intercept differences; S = Slope differences; E = Equitable test, no significant slope or intercept differences found; NT = Not tested due to small sample sizes.

Math High School Composite

English I - IV

Freshmen 1984-85. The use of this composite resulted in statistically significant intercept differences in the prediction equations for the gender groups, with an R^2 change of .032 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the Math composite as the predictor variable, freshmen females would be consistently underpredicted in their English grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score, the results showed no statistically significant slope or intercept differences for White, Black and Hispanic sophomores, which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the Math composite score in the prediction equation, could be used in the prediction of English course grade for these freshmen.

Freshmen 1985-86. This composite showed statistically significant intercept differences in the prediction equations for the two freshmen gender groups and resulted in an R^2 change of .032 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the Math composite as the predictor variable freshmen females would be consistently underpredicted in their English grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

When the model comparisons were made for ethnic group differences, using this ASVAB composite resulted in no statistically significant slope or intercept differences among the White, Black and Hispanic regression lines. Thus, Model 12, which contained only the unit vector and the Math composite score in the prediction equation, could be used in the prediction of English course grade for these freshmen.

Sophomores 1984-85. When the model comparisons were made for gender group differences, using the Math composite resulted in statistically significant slope differences between the male and female regression lines. The R^2 change for the Model 7 and Model 8 comparison was approximately .004 ($p \leq .001$), with Model 7 being the best prediction equation for this groups English grade. Thus, the change in the English grade per unit change in the ASVAB Math composite was significantly different for this year's sophomore males and females.

Using the Math composite score as the aptitude measure resulted in no statistically significant slope or intercept differences for White, Black and Hispanic sophomores which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the Math composite score in the prediction equation, could be used in the prediction of English course grade for these sophomores.

Sophomores 1985-86. The model comparisons for gender group differences using the Math composite showed statistically significant intercept differences between the male and female regression lines, with Model 8 as the prediction equation to be used for this sample. The R^2 change for the Model 8 and Model 9 comparison was approximately .004 ($p \leq .001$). Thus, using the Math composite as the predictor variable sophomore females would be consistently underpredicted in their English grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Using the Math composite score as the aptitude measure also resulted in statistically significant intercept differences for White, Black and Hispanic sophomores, which were the ethnic groups defined in the prediction equations. The R^2 change for the Model 11 and Model 12 comparison was approximately .014 ($p \leq .001$), with Model 11 being the best prediction equation for this sample. Thus, using the Math composite as the predictor variable White and Hispanic sophomores would be consistently underpredicted in their English grades if the common regression line were used, while Black sophomores would be consistently overpredicted if a common regression line were used.

Juniors 1984-85. When the model comparisons were made for gender group differences using the Math high school composite, the results showed statistically significant intercept differences between the male and female regression lines, with Model 8 as the prediction equation to be used for this sample. The R^2 change for the Model 8 and Model 9 comparison was approximately .004 ($p \leq .001$). Thus, using the Math composite as the predictor variable junior females would be consistently underpredicted in their English grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score as the aptitude predictor variable resulted in no statistically significant slope or intercept differences for White, Black and Hispanic juniors. Thus, Model 12, which contained only the unit vector and the Math composite score in the prediction equation, could be used in the prediction of English course grade for these individuals.

Juniors 1985-86. As in the 1984-85 school year, using the Math composite in the equations showed statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was

approximately .008 ($p \leq .001$), with Model 8 being the best prediction equation for English grade. Again, using the Math composite as the predictor variable junior females would be consistently underpredicted in their English grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Again, using the Math composite score resulted in no statistically significant slope or intercept differences for the ethnic groups, with this sample including only White, Black and Hispanic individuals. Thus, Model 12, which contained only the unit vector and the Math composite score in the prediction equation, could be used in the prediction of English course grade for these juniors.

Seniors 1984-85. The ASVAB Math composite as the aptitude predictor showed statistically significant intercept differences in the prediction equations for the two senior gender groups and resulted in an R^2 change of .030 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the Math composite as the aptitude predictor variable senior females would be consistently underpredicted in their English grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the White, Black and Hispanic ethnic group members. Model 12 could be used in the prediction of English course grades obtained by seniors during this school year.

General Math

Freshmen 1984-85. This sample, using the Math high school composite score as the aptitude predictor variable, resulted in no statistically significant slope or intercept differences for the gender group members or the White, Black and Hispanic ethnic group members. Models 9 or 12, containing only the unit vector and the Math composite score in the prediction equation, could be used in the prediction of General Math course grade for these freshmen.

Freshmen 1985-86. For this sample, the results also showed no statistically significant slope or intercept differences for the gender group members or the White and Black ethnic group members. Again, Models 9 or 12, containing only the unit vector and the Math composite score in the prediction equation, could be used in the prediction of General Math course grade for these freshmen.

Sophomores 1984-85. This sample also resulted in no statistically significant slope or intercept differences for the gender group members or the White, Black and Hispanic ethnic

group members. Models 9 or 12, which contained only the unit vector and the Math composite score in the prediction equation, could be used in the prediction of General Math course grades obtained during this year by sophomores.

Sophomores 1985-86. This sample, using the Math composite in the equations, showed statistically significant intercept differences between the male and female gender subgroups. With an R^2 change of .034 ($p \leq .001$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction system. Thus, if a common regression line using the Math composite were used in the prediction of General Math course grade, female sophomores would be consistently underpredicted on the criterion while male sophomores would be consistently overpredicted.

The results also showed no statistically significant slope or intercept differences between the White and Black ethnic group members regression lines. Thus, Model 12, containing the unit vector and the Math composite score, could be used in predicting General Math course grade for these individuals.

Juniors 1984-85. In this 1984-85 sample, using the Math high school composite score as the aptitude predictor variable, the results showed no statistically significant slope or intercept differences for the gender group members or the White and Black ethnic group members. Thus, Models 9 or 12, which contained only the unit vector and the Math composite score in the prediction equation, could be used in the prediction of General Math course grades obtained in 1984-85 by juniors.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. Using the Math composite as the aptitude predictor variable resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. Thus, Models 9 or 12, containing the unit vector and the Math composite score, could be used in predicting General Math course grade for these individuals.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. The results showed no statistically significant slope or intercept differences for the gender group or ethnic group members. Again, Model 9 or Model 12 could be used in the prediction of General Math course grades obtained in 1984-85 by seniors.

Algebra

Freshmen 1984-85. Using the ASVAB Math composite as the predictor variable, the results showed statistically significant intercept differences in the prediction equations for the two gender groups with an R^2 change of .041 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, freshmen females would be consistently underpredicted in their Algebra grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the ethnic group members, which in this sample were defined as White and Nonwhite. Thus, Model 12, which contained only the unit vector and the Math composite score in the prediction equation, could be used in the prediction of Algebra course grade for freshmen during this school year.

Freshmen 1985-86. With the Math composite as the aptitude measure the results showed statistically significant intercept differences in the prediction equations for the two gender groups. These comparisons resulted in R^2 change of .037 ($p \leq .001$) for the Model 8 vs Model 9 tests. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, freshmen females would be consistently underpredicted in their Algebra grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the ethnic group members, which in this sample were defined as White and Nonwhite. Thus, Model 12, which contained only the unit vector and the Math composite score in the prediction equation, could be used in the prediction of Algebra course grade for freshmen during this school year.

Sophomores 1984-85. In this 1984-85 sample, using the Math high school composite score as the aptitude predictor variable, the results showed statistically significant intercept differences for the gender group members. These tests resulted in an R^2 change of .023 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, sophomore females would be consistently underpredicted in their Algebra grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the ethnic group members, which in this sample were defined as White and Nonwhite. Thus, Model 12, which contained only the unit vector and the Math composite score in the prediction equation, could be used in the prediction of Algebra course grade for sophomores during this school year.

Sophomores 1985-86. In this sample, using the Math high school composite, the results also showed statistically significant intercept differences for the gender group members. These tests resulted in an R^2 change of .016 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, sophomore females would be consistently underpredicted in their Algebra grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Using the Math composite as the predictor resulted in no statistically significant slope or intercept differences for the White and Nonwhite ethnic group members. Thus, Model 12, which contained only the unit vector and the Math composite score in the prediction equation, could be used in the prediction of Algebra course grades obtained in 1985-86 by sophomores.

Juniors 1984-85. In this 1984-85 sample, using the Math high school composite score as the aptitude predictor variable, the results showed statistically significant intercept differences for the gender group members. These tests resulted in an R^2 change of .035 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, junior females would be consistently underpredicted in their Algebra grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the ethnic group members, which in this sample were defined as White and Black. Thus, Model 12, which contained only the unit vector and the Math composite score in the prediction equation, could be used in the prediction of Algebra course grade for juniors during this school year.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Using the Math composite as the aptitude predictor resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. Again, Model 9 or Model 12 could be used in the prediction of Algebra course grade for these juniors.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Using the Math composite in the equations resulted in statistically significant intercept differences for the gender group members. With an R^2 change of .034 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction system for these seniors. Using this composite, senior females would be consistently underpredicted in their Algebra grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the ethnic group members, which in this sample were defined as White and Nonwhite. Thus, Model 12 could be used in the prediction of Algebra course grades obtained by seniors in the 1984-85 school year.

Geometry

Freshmen 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. Using the Math composite in the prediction equations resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. Thus, Model 9 or 12 could be used in the prediction of Geometry course grades obtained by freshmen in the 1985-86 school year.

Sophomores 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. Using the Math composite in the equations resulted in statistically significant intercept differences for the gender group members. With an R^2 change of .011 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction system for these sophomores. Using this composite, sophomore females would be consistently underpredicted in their Geometry grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

As in the Freshmen sample, using the Math composite resulted in no statistically significant slope of intercept differences for the three ethnic groups. Model 12 could be used in the prediction of Geometry course grade for these sophomores.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. With the Math composite as the aptitude measure, the results showed statistically significant intercept differences for the gender group members. With an R^2 change of .018 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction equation for Geometry course grade for these sophomores. Using this composite, sophomore females would be consistently underpredicted in their Geometry grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

When the model comparisons were made for ethnic group differences, using the Math composite within the equations, the results showed statistically significant intercept differences between the White and Black regression lines. The R^2 change for the Model 11 and Model 12 comparison was approximately .022 ($p \leq .01$), with Model 11 being the best prediction equation for this sample's Geometry grade. Thus, White sophomores would be consistently underpredicted in their Geometry grades if the common regression line were used, while Black sophomores would be consistently overpredicted if a common regression line were used.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. With the Math composite as the aptitude measure, the results showed statistically significant intercept differences for the gender group members. With an R^2 change of .018 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction equation for Geometry course grade for these juniors. Using this composite, junior females would be consistently underpredicted in their Geometry grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

When the tests were conducted for ethnic group differences using the Math predictor composite, the results showed no statistically significant slope of intercept differences for the ethnic group members. Model 12 could be used in the prediction of Geometry course grade for these juniors.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. As in some of the other Geometry samples, using the Math composite in the

prediction equations resulted in no statistically significant slope or intercept differences for the gender group members. Model 9 could be used in the prediction of Geometry course grade for these juniors.

When the model comparisons were made for ethnic group differences, using the Math composite, the results showed statistically significant intercept differences between the White and Nonwhite regression lines. The R^2 change for the Model 10 and Model 11 comparison was approximately .069 ($p \leq .01$), with Model 10 being the best prediction equation for this sample's Geometry grade. Thus, the change in Geometry grade per unit change in the Math composite was significantly different for White and Nonwhite juniors.

<u>Seniors 1984-85</u>. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. In this sample, the Math composite equations resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. Again, Model 9 or Model 12 could be used in the prediction of Geometry course grades for these seniors.

<u>Calculus</u>

<u>Juniors 1985-86</u>. This was the only Calculus sample which possessed more than 50 cases, and only gender group differences were tested. The Math composite, as the predictor variable, resulted in no statistically significant slope or intercept differences for the gender group members. Model 9 could be used in the prediction of Calculus course grades for these individuals.

<u>General Science</u>

<u>Freshmen 1984-85</u>. Using the Math high school composite with this sample, the results showed no statistically significant differences between the Model 2 vs Model 4 comparison. Model 4 included the unit vector, the Math composite score, and the sex by ethnicity two-way interaction predictor variables, with ethnicity membership being defined as White, Black and Hispanic. With Model 4 as the best prediction equation for this sample's General Science grade, no differential validity was evidenced for the ethnicity by Math score two-way interaction variables or the sex by Math score two-way interaction variables.

<u>Freshmen 1985-86</u>. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White

and Black ethnic group differences were studied by not including the gender variables in the equations. Using the Math composite as the aptitude predictor variable resulted in no statistically significant intercept differences for the gender group members. Model 9, which contained the unit vector and the Math composite score, could be used in the prediction of General Science course grades obtained by freshmen in 1985-86.

When the model comparisons were made for ethnic group differences, using the Math composite, the results showed statistically significant intercept differences between the White and Black regression lines. The R^2 change for the Model 10 and Model 11 comparison was approximately .031 ($p \leq .01$), with Model 10 being the best prediction equation for this sample's General Science grade. Thus, the change in General Science grade per unit change in the Math composite was significantly different for White and Black freshmen.

Sophomores 1984-85. In this 1984-85 sample, using the Math high school composite score as the aptitude predictor variable, the results showed statistically significant intercept differences for the gender group members. These tests resulted in an R^2 change of .035 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, sophomore females would be consistently underpredicted in their General Science grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the ethnic group members, which in this sample were defined as White and Nonwhite. Thus, Model 12, which contained only the unit vector and the Math composite score in the prediction equation, could be used in the prediction of General Science course grade for these sophomores during this school year.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. Again, using the Math composite as the aptitude aptitude measure resulted in no statistically significant slope or intercept differences for the gender group members. Model 9 could be used in the prediction of General Science course grade for these sophomores.

When the model comparisons were made for ethnic group differences, using the Math composite, the results showed statistically significant intercept differences between the White and Black regression lines. The R^2 change for the Model 11 and Model 12 comparison was approximately .044 ($p \leq .01$), with Model 11 being the best prediction equation for this sample's General

Science grade. Thus, using this composite, White sophomores would be consistently underpredicted in their General Science grades if the common regression line were used, while Black sophomores would be consistently overpredicted if a common regression line were used.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. Using the Math composite within the prediction equation resulted in no statistically significant slope or intercept differences for the gender group members. Again, Model 9 could be used in the prediction of General Science course grade for these juniors.

With the Math composite as the aptitude measure, the results showed statistically significant intercept differences for the two ethnic subgroups. With an R^2 change of .071 ($p \leq .01$) for the Model 11 vs Model 12 comparison, Model 11 would be the best prediction equation for General Science course grade for these juniors. Using this composite, White juniors would be consistently underpredicted in their General Science grades if the common regression line were used, while Black juniors would be consistently overpredicted if a common regression line were used.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. This Math composite prediction equation resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. Thus, Model 9 or 12 could be used in the prediction of General Science course grades obtained by juniors in 1985-86.

Seniors 1984-85. This sample tested only for gender group differences. Using the Math composite equation resulted in no statistically significant slope or intercept differences for the gender groups. Thus, Model 9, which contained the unit vector and the ASVAB Math composite, could be used in the prediction of General Science course grade for these seniors.

Biology I - II

Freshmen 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. This Math composite equation also resulted in no statistically significant

slope or intercept differences for the gender group or ethnic group members. Again, Model 9 or 12 could be used in the prediction of Biology course grades obtained by freshmen in 1984-85.

Freshmen 1985-86. The use of this composite resulted in statistically significant intercept differences in the prediction equations for the two freshmen gender groups, with an R^2 change of .028 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the Math composite as the predictor variable, freshmen females would be consistently underpredicted in their Biology grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score, the results showed no statistically significant slope or intercept differences for White and Black freshmen, which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the Math composite score in the prediction equation, could be used in the prediction of Biology course grade for these freshmen.

Sophomores 1984-85. The use of this composite with this sample also resulted in statistically significant intercept differences in the prediction equations for the two freshmen gender groups, with an R^2 change of .018 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the Math composite as the predictor variable, sophomore females would be consistently underpredicted in their Biology grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the Math composite as the predictor composite, the results showed statistically significant intercept differences in the prediction equations for the White, Black and Hispanic ethnic groups, with an R^2 change of .008 ($p \leq .001$) for the Model 11 vs Model 12 comparison. Therefore, Model 11 would be the best prediction equation for this sample. Using the Math composite as the predictor variable, Black and Hispanic sophomores would be consistently underpredicted in their Biology grades if the common regression line were used, while White sophomores would be consistently overpredicted if a common regression line were used.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. These tests resulted statistically significant intercept differences between the gender group members and an R^2 change of .044 ($p \leq .01$)

for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, sophomore females would be consistently underpredicted in their Biology grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the three ethnic groups. Thus, Model 12, which contained only the unit vector and the Math composite score in the prediction equation, could be used in the prediction of Biology course grade for these sophomores during this school year.

Juniors 1984-85. The use of this composite resulted in statistically significant intercept differences in the prediction equations for the two junior gender groups, with an R^2 change of .033 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the Math composite as the predictor variable, junior females would be consistently underpredicted in their Biology grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score, the results showed no statistically significant slope or intercept differences for White and Nonwhite juniors, which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the Math composite score in the prediction equation, could be used in the prediction of Biology course grade for these juniors.

Juniors 1985-86. This sample tested only for gender group differences. Using the Math composite as the predictor variable resulted in statistically significant slope differences for the gender groups. With an R^2 change of .031 ($p \leq .01$) for the Model 7 vs Model 8 comparison, Model 7 would be the best prediction equation of Biology course grade for these juniors. Thus, the change in the Biology grade per unit change in the Math high school composite was significantly different for male and female freshmen.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. The use of this Math composite in the equations resulted in statistically significant intercept differences for the gender and two ethnic group members. With R2 changes of .024 and .066 ($p \leq .01$) for the Model 8 vs Model 9 and the Model 11 vs Model 12 comparisons, Models 8 and 11 would be the best prediction equations for these seniors. Using this composite, senior females would be consistently

underpredicted in their Biology grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used. Conversely, if a common regression line using the Math composite as the aptitude measure were used in the prediction of Biology course grade, White seniors would be consistently underpredicted on this criterion while Black seniors would be consistently overpredicted.

Chemistry I - II

Freshmen 1985-86. This sample tested only for gender group differences. Using the Math composite in the equations, the results showed no statistically significant slope or intercept differences for the gender groups. Thus, Model 9, which contained the unit vector and the ASVAB Math composite, could be used in the prediction of Chemistry course grades obtained by freshmen in this year.

Sophomores 1984-85. This sample tested only for gender group differences. Again, with the Math composite in the equations, the results showed no statistically significant slope or intercept differences for the gender groups. Model 9 could be used in the prediction of Chemistry course grades obtained by these sophomores.

Sophomores 1985-86. This sample tested only for gender group differences. Using the Math composite as the predictor variable, the results indicated statistically significant intercept differences for the gender groups. With an R^2 change of .044 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction system of Chemistry course grade for these sophomores. Using this composite, sophomore females would be consistently underpredicted in their Chemistry grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The use of this Math composite in the equations resulted in statistically significant intercept differences for the gender group members. With R^2 change of .048 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction equation for these juniors. Using this composite, junior females would be consistently underpredicted in their Chemistry grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score, the results showed no statistically significant slope or intercept differences for

White and Nonwhite juniors, which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the Math composite score in the prediction equation, could be used in the prediction of Chemistry course grade for these juniors.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The use of this composite resulted in statistically significant intercept differences in the prediction equations for the two junior gender groups, with an R^2 change of .074 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the Math composite as the predictor variable, junior females would be consistently underpredicted in their Chemistry grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score, the results again showed no statistically significant slope or intercept differences for White and Nonwhite juniors, which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the Math composite score in the prediction equation, could be used in the prediction of Chemistry course grade for these juniors.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Using the Math composite, the results showed no statistically significant slope or intercept differences for the gender or White and Nonwhite ethnic group members. Model 9 or 12 could be used in the prediction of Chemistry course grades obtained by seniors during this school year.

Physics I - II

Juniors 1985-86. This sample tested only for gender group differences. The use of this composite resulted in statistically significant intercept differences in the prediction equations for the two junior gender groups, with an R^2 change of .041 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the Math composite as the predictor variable, junior females would be consistently underpredicted in their Physics grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Seniors 1984-85. This sample tested only for gender group differences. The Math composite equations again resulted in statistically significant intercept differences for the gender groups. An R^2 change of .037 ($p \leq .01$) for the Model 8 vs Model 9 comparison was evidenced; therefore, Model 8 would be the best prediction equation for this sample. Using the Math composite as the predictor variable, senior females would be consistently underpredicted in their Physics grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

Government and Civics

Freshmen 1984-85. This sample tested only for gender group differences. The Math composite prediction equations resulted in no statistically significant slope or intercept differences for the gender groups. Thus, Model 9, which contained the unit vector and the ASVAB Math composite, could be used in the prediction of Government course grades obtained by freshmen for this year.

Sophomore 1984-85. This sample also tested only for gender group differences. Using the Math composite as the predictor variable, the results showed statistically significant intercept differences for the gender groups. An R^2 change of .038 ($p \leq .01$) for the Model 8 vs Model 9 comparison was evidenced; therefore, Model 8 would be the best prediction equation for this sample. Using the Math composite as the predictor variable, sophomore females would be consistently underpredicted in their Government grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The use of this Math composite in the equations resulted in statistically significant intercept differences for the gender and two ethnic group members. With R^2 changes of .028 and .021 ($p \leq .01$) for the Model 8 vs Model 9 and the Model 11 vs Model 12 comparisons, Models 8 and 11 would be the best prediction equations for these sophomores. Using this composite, sophomore females would be consistently underpredicted in their Government grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used. Conversely, if a common regression line using the Math composite as the aptitude measure were used in the prediction of Government course grade, White sophomores would be consistently underpredicted on this criterion while Hispanic sophomores would be consistently overpredicted.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. However, the use of this Math composite in the equations resulted in statistically significant intercept differences for only the gender subgroup. With R^2 change of .020 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction equation for these juniors. Using this composite, junior females would be consistently underpredicted in their Government grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score, the results showed no statistically significant slope or intercept differences for White and Nonwhite juniors, which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the Math composite score in the prediction equation, could be used in the prediction of Government course grade for these juniors.

Juniors 1985-86. This sample, using the Math high school composite score as the aptitude predictor variable, resulted in statistically significant intercept differences for the gender group members. With an R^2 change of .030 ($p \leq .001$) for the Model 8 vs Model 9 comparison, Model 8 was the best prediction equation for this sample. Using this composite, junior females would be consistently underpredicted in their Government grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score, the results showed no statistically significant slope or intercept differences for White and Black juniors, which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the Math composite score in the prediction equation, could be used in the prediction of Government course grade for these juniors.

Seniors 1984-85. Similar to the previous samples, this sample, using the Math composite score as the aptitude predictor variable, resulted in no statistically significant slope or intercept differences for the gender group members or the White and Black ethnic group members. Again, Models 9 or 12, which contained only the unit vector and the Math composite score in the prediction equation, could be used in the prediction of Government course grades for these seniors.

History

Freshmen 1984-85. The use of the ASVAB Math composite as the aptitude predictor variable showed statistically significant intercept differences in the prediction equations for the two freshmen gender groups and resulted in an R^2 change of .031 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, freshmen females would be consistently underpredicted in their History grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

The use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White, Black and Hispanic ethnic group members. Thus, Model 12, which contained only the unit vector and the Math composite score in the prediction equation, could be used in the prediction of History course grades obtained by freshmen during this school year.

Freshmen 1985-86. This sample, using the Math high school composite score as the aptitude predictor variable, resulted in statistically significant intercept differences in the prediction equations for the two freshmen gender groups and resulted in an R^2 change of .008 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, freshmen females would be consistently underpredicted in their History grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

The use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Black ethnic group members. Thus, Model 12, which contained only the unit vector and the Math composite score in the prediction equation, could be used in the prediction of History course grades obtained by freshmen during this school year.

Sophomores 1984-85. Using the Math high school composite score as the aptitude predictor variable, the results showed statistically significant intercept differences in the prediction equations for the two sophomore gender groups and resulted in an R^2 change of .016 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, sophomore females would be consistently underpredicted in their History grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Again, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Black ethnic group members. Thus, Model 12, which contained only the unit vector and the Math composite score in the prediction equation, could be used in the prediction of History course grades obtained by sophomores during this school year.

Sophomores 1985-86. The use of this composite resulted in statistically significant intercept differences in the prediction equations for the gender groups, with an R^2 change of .032 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the Math composite as the predictor variable, sophomore females would be consistently underpredicted in their History grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score, the results showed no statistically significant slope or intercept differences for White, Black and Hispanic sophomores, which were the ethnic groups defined in the prediction equations. The R^2 change for the Model 10 and Model 11 comparison was approximately .008 ($p \leq .001$), with Model 10 being the best prediction equation for this sample. Thus, the change in History grade per unit change in the Math composite was significantly different for White, Black and Hispanic sophomores.

Juniors 1984-85. Like the 1985-86 freshmen sample, this sample, using the Math high school composite score as the aptitude predictor variable, resulted in statistically significant intercept differences in the prediction equations for the two junior gender groups and resulted in an R^2 change of .031 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, junior females would be consistently underpredicted in their History grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

The use of this ASVAB composite in the equations resulted in statistically significant intercept differences for the White and Black ethnic group members. An R^2 change of .009 ($p \leq .001$) for the Model 11 vs Model 12 comparison was evidenced. Therefore, Model 11 would be the best prediction equation for this sample. Using this composite as the predictor variable, White juniors would be consistently underpredicted in their History grades if the common regression line were used, while Black juniors would be consistently overpredicted if a common regression line were used.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. Using the Math high school composite score as the aptitude predictor variable, the results showed statistically significant slope differences in the prediction equations for the two junior gender groups and resulted in an R^2 change of .018 ($p \leq .01$) for the Model 7 vs Model 8 comparison. Therefore, Model 7 would be the best prediction equation for this sample. Thus, the change in the History grade per unit change in the Math high school composite was significantly different for freshmen males and females.

Again, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Black ethnic group members. Thus, Model 12, which contained only the unit vector and the Math composite score in the prediction equation, could be used in the prediction of History course grades obtained by juniors during this school year.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. The use of the Math composite in the prediction equations resulted in no statistically significant slope or intercept differences for the gender group members. Model 9 could be used in the prediction of History course grade for these seniors.

Statistically significant intercept differences resulted between the White and Black ethnic subgroups. With an R^2 change of .030 ($p \leq .01$) for the Model 11 vs Model 12 comparison, Model 11 would be the best prediction system. Thus, if a common regression line using the Math composite as the aptitude measure were used in the prediction of History course grade, White seniors would be consistently underpredicted on this criterion while Black seniors would be consistently overpredicted.

Foreign Language

Freshmen 1984-85. After collapsing across ethnic groups and then collapsing across gender groups, the use of the ASVAB Math composite as the aptitude predictor variable showed statistically significant intercept differences in the prediction equations for the two freshmen gender groups. The results showed an R^2 change of .052 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the aptitude predictor variable, freshmen females would be consistently underpredicted in their

Foreign Language grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

The use of this ASVAB composite score in the equations also resulted in statistically significant intercept differences in the prediction equations for the White, Black and Hispanic ethnic groups and resulted in an R^2 change of .013 ($p \leq .01$) for the Model 11 vs Model 12 comparison. Therefore, Model 11 would be the best prediction equation for this sample. Using this composite as the aptitude predictor variable, White and Hispanic freshmen would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while Black freshmen would be consistently overpredicted if a common regression line were used.

Freshmen 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. When the model comparisons were made for gender group differences, using the Math composite within the equations, the results showed statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .043 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Foreign Language grade. Thus, freshmen females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

When the model comparisons were made for ethnic group differences, using the Math composite within the equations, the results showed no statistically significant slope or intercept differences between the White, Black and Hispanic regression lines. Model 12, which contained only the unit vector and the Math composite score in the prediction equation, could be used in the prediction of Foreign Language course grades obtained by freshmen during this school year.

Sophomores 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The Math prediction equations showed statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .079 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Foreign Language grade. Thus, using this composite

as the aptitude measure, sophomore females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

When the model comparisons were made for ethnic group differences, the use of this Math composite in the prediction equations also resulted in statistically significant intercept differences for the ethnic group members. With an R^2 change of .009 ($p \leq .01$) for the Model 11 vs Model 12 comparison, Model 11 would be the best prediction system for these sophomores' Foreign Language course grade. Again, using this composite as the aptitude measure, White and Hispanic sophomores would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while Black sophomores would be consistently overpredicted if a common regression line were used.

Sophomores 1985-86. Using the ASVAB Math composite as the aptitude predictor in the equations showed statistically significant intercept differences in the prediction equations for the two sophomore gender groups and resulted in an R^2 change of .062 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite sophomore females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

The use of this ASVAB composite score in the prediction equations resulted in no statistically significant slope or intercept differences for the White and Nonwhite ethnic group members. Thus, Model 12, which contained only the unit vector and the Math composite score in the prediction equation, could be used in the prediction of Foreign Language course grades obtained by sophomores during this school year.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The use of the Math composite as a predictor measure showed statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .082 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Foreign Language grade. Thus, using this predictor composite, junior females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

When the model comparisons were made for ethnic group differences, the Math predictor composite resulted in no statistically significant slope or intercept differences for the ethnic group members. Model 12 could be used in the prediction of Foreign Language course grades obtained by juniors during this school year.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The Math prediction equations resulted in statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .048 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Foreign Language grade. Thus, using this predictor composite, junior females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

When testing for ethnic group differences, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Hispanic ethnic group members. Thus, Model 12, which contained only the unit vector and the Math composite score in the prediction equation, could be used in the prediction of Foreign Language course grades obtained by juniors during this school year.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The Math composite prediction equations resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. Models 9 or 12 could be used in the prediction of Foreign Language course grade for these individuals.

Secretary and Office Education

Juniors 1985-86. This sample tested only for White and Nonwhite ethnic group differences. Using the Math composite as the aptitude predictor variable, the results showed no statistically significant slope or intercept differences for the ethnic groups. Thus, Model 12, which contained the unit vector and the ASVAB Math composite, could be used in the prediction of this course grade for these juniors.

Seniors 1984-85. This sample also tested only for White and Nonwhite ethnic group differences. Again, using the Math composite prediction equations the results showed no statistically significant slope or intercept differences for the ethnic groups. Thus, Model 12, which contained the unit vector and the ASVAB Math composite, could be used in the prediction of Secretary and Office course grades obtained by these seniors.

Typing and Word Processing

Freshmen 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The Math prediction equations resulted in statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .013 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Typing grade. Thus, using this predictor composite, freshmen females would be consistently underpredicted in their Typing grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

When testing for ethnic group differences, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White, Black and Hispanic ethnic group members. Thus, Model 12, which contained only the unit vector and the Math composite score in the prediction equation, could be used in the prediction of Typing course grades obtained by freshmen during this school year.

Freshmen 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The Math prediction equations resulted in statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .029 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Typing grade. Thus, using this predictor composite, freshmen females would be consistently underpredicted in their Typing grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

When testing for ethnic group differences, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Hispanic ethnic group members. Thus, Model 12, which contained

only the unit vector and the Math composite score in the prediction equation, could be used in the prediction of Typing course grades obtained by freshmen during this school year.

Sophomores 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The results again showed statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .042 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Typing grade. Thus, using this predictor composite, sophomore females would be consistently underpredicted in their Typing grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Again, when testing for ethnic group differences, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White, Black and Hispanic ethnic group members. Thus, Model 12, which contained only the unit vector and the Math composite score in the prediction equation, could be used in the prediction of Typing course grades obtained by sophomores during this school year.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. Using the Math composite as the aptitude predictor variable, the results showed no statistically significant slope or intercept differences for the gender group or ethnic group members. Again, Model 9 or 12 could be used in the prediction of Typing course grade for these sophomores.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. As in the sophomore 1984-85 sample, the results showed statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .063 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Typing grade. Thus, using this predictor composite, junior females would be consistently underpredicted in their Typing grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Again, when testing for ethnic group differences, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Black ethnic group members. Thus, Model 12, which contained only the unit vector and the Math composite score in the prediction equation, could be used in the prediction of Typing course grades obtained by juniors during this school year.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. As in the previous sample, the results showed statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .036 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Typing grade. Thus, using this predictor composite, junior females would be consistently underpredicted in their Typing grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Again, when testing for ethnic group differences, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Nonwhite ethnic group members. Thus, Model 12, which contained only the unit vector and the Math composite score in the prediction equation, could be used in the prediction of Typing course grades obtained by juniors during this school year.

Seniors 1934-85. This sample tested only for gender group differences. The Math composite equations resulted in statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .033 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Typing grade. Thus, using this predictor composite, senior females would be consistently underpredicted in their Typing grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

Accounting and Bookkeeping

Sophomores 1985-86. This sample tested only for gender group differences. The use of the ASVAB Math composite as the predictor variable showed statistically significant intercept differences in the prediction equations for the two sophomore gender groups and resulted in an R^2 change of .049 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, sophomore females would be

consistently underpredicted in their Accounting grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Juniors 1984-85. This sample tested for gender group differences. Again, using the Math composite prediction equations, the results showed statistically significant intercept differences in the prediction equations for the two junior gender groups and resulted in an R^2 change of .093 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, junior females would be consistently underpredicted in their Accounting grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Juniors 1985-86. This sample tested for gender group differences. As in the previous sample, using the Math composite prediction equations, the results showed statistically significant intercept differences in the prediction equations for the two junior gender groups and resulted in an R^2 change of .038 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, junior females would be consistently underpredicted in their Accounting grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Seniors 1984-85. Like the junior sample, this sample tested only for gender group differences. Using the Math composite prediction equations, the results showed statistically significant intercept differences in the prediction equations for the two gender groups and resulted in an R^2 change of .037 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, senior females would be consistently underpredicted in their Accounting grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

Home Economics

Freshmen 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. The prediction equations with the ASVAB Math composite showed statistically significant intercept differences in the prediction equations for the two freshmen gender groups and resulted in an R^2 change of .047 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, freshmen females would be consistently

underpredicted in their Home Economics grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB Math composite, the results showed statistically significant intercept differences in the prediction equations for the two ethnic groups. An R^2 change of .074 ($p \leq .01$) for the Model 11 vs Model 12 comparison was evidenced; and Model 11 could be used in the prediction of Home Economics course grade for these freshmen. Using this predictor composite, freshmen Whites would be consistently underpredicted in their Home Economics grades if the common regression line were used, while freshmen Blacks would be consistently overpredicted if a common regression line were used.

Freshmen 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Using the Math composite as a predictor variable, the results showed statistically significant intercept differences for these two freshmen gender groups and resulted in an R^2 change of .060 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the aptitude measure, freshmen females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB Math composite, the results showed no statistically significant slope or intercept differences in the prediction equations for the two ethnic groups. Model 12 could be used in the prediction of Home Economics course grade for these freshmen.

Sophomore 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The prediction equations with the ASVAB Math composite showed statistically significant intercept differences in the prediction equations for the two gender groups and resulted in an R^2 change of .052 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, sophomore females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB Math composite, the results showed statistically significant intercept differences in the prediction equations for the two ethnic groups. An R^2 change of .040 ($p \leq .01$) for the Model 11 vs Model 12 comparison was evidenced; and Model 11 could be used in the prediction of Home Economics course grade for these sophomores. Using this predictor composite, White sophomores would be consistently underpredicted in their Home Economics grades if the common regression line were used, while Nonwhite sophomores would be consistently overpredicted if a common regression line were used.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The use of the Math composite prediction equations resulted in statistically significant intercept differences for the gender group members and resulted in an R^2 change of .057 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, sophomore females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB Math composite, the results showed no statistically significant slope or intercept differences in the prediction equations for the two ethnic groups. Model 12 could be used in the prediction of Home Economics course grade for these sophomores.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The use of the Math composite prediction equations resulted in statistically significant intercept differences for the gender group members and resulted in an R^2 change of .028 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, junior females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB Math composite, the results showed no statistically significant slope or intercept differences in the prediction

prediction equations for the two ethnic groups. Model 12 could be used in the prediction of Home Economics course grade for these juniors.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Again, this sample, using the Math composite equations, resulted in statistically significant intercept differences for the gender group members. An R^2 change of .113 ($p \leq .01$) for the Model 8 vs Model 9 comparison was evidenced; therefore, Model 8 would be the best prediction equation for this sample. Using this predictor composite junior females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB Math composite, the results indicated no statistically significant slope or intercept differences in the prediction equations for the two ethnic groups. Model 12 could be used in the prediction of Home Economics course grade for these juniors.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. As in the junior 1985-86 sample, the Math composite equations resulted in statistically significant intercept differences for the gender group members. An R^2 change of .043 ($p \leq .01$) was obtained for the Model 8 vs Model 9 comparison; therefore, Model 8 would be the best prediction equation for this sample. Using this composite senior females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

The tests for ethnic group differences were conducted using the ASVAB Math composite, and the results showed no statistically significant slope or intercept differences in the prediction equations for the two ethnic groups. Model 12 could be used in the prediction of Home Economics course grade for these seniors.

Computer Programming

Sophomores 1985-86. This sample tested only for gender group differences. Using the Math composite as a predictor variable, the results showed statistically significant intercept differences for the gender group members. An R^2 change of .069

($p \leq .01$) was obtained for the Model 8 vs Model 9 comparison; therefore, Model 8 would be the best prediction equation for this sample. Using this composite sophomore females would be consistently underpredicted in their Computer Programming grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

<u>Juniors 1984-85</u>. Like the sophomore sample, this sample tested for gender group differences. Again, the Math composite equations resulted in no statistically significant slope or intercept differences for the gender groups. Thus, Model 9, which contained the unit vector and the ASVAB Math composite, could be used in the prediction of Computer Programming course grades obtained by juniors for this year.

<u>Juniors 1985-86</u>. Collapsing across the ethnic groups, the model comparisons tested for gender group differences. Using the Math predictor composite, the results showed statistically significant intercept differences in the prediction equations for the two junior gender groups and resulted in an R^2 change of .105 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite junior females would be consistently underpredicted in their Computer Programming grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

<u>Seniors 1984-85</u>. As in the previous Computer Programming samples, this sample tested for gender group differences. The Math composite prediction equations resulted in no statistically significant slope or intercept differences for the gender groups. Thus, Model 9, which contained the unit vector and the ASVAB Math composite, could be used in the prediction of Computer Programming course grades obtained by seniors for this year.

<u>Table 7.</u> Summary of Equity Findings for Prediction of High School Course Grades by Math High School Composite

Course	Sex	Ethnicity	Sex*Ethnicity
English I-IV			
Fresh 84-85	I	E	NS
Fresh 85-86	I	E	NS
Soph 84-85	S	E	NS
Soph 85-86	I	!	NS
Jr 84-85	I	E	NS
Jr 85-86	I	E	NS
Sr 84-85	I	E	NS

<u>Note</u>. NS = Not significant; I = Intercept differences; S = Slope differences; E = Equitable test, no significant slope or intercept differences found; NT = Not tested due to small sample sizes.

Table 7. (Continued)

Course	Sex	Ethnicity	Sex*Ethnicity
General Math			
Fresh 84-85	E	E	NS
Fresh 85-86	E	E	NS
Soph 84-85	E	E	NS
Soph 85-86	I	E	NS
Jr 84-85	E	E	NS
Jr 85-86	E	E	NS
Sr 84-85	E	E	NS
Algebra			
Fresh 84-85	I	E	NS
Fresh 85-86	I	E	NS
Soph 84-85	I	E	NS
Soph 85-86	I	E	NS
Jr 84-85	I	E	NS
Jr 85-86	E	E	NS
Sr 84-85	I	E	NS
Geometry			
Fresh 85-86	E	E	NS
Soph 84-85	I	E	NS
Soph 85-86	I	I	NS
Jr 84-85	I	E	NS
Jr 85-86	E	S	NS
Sr 84-85	E	E	NS
Calculus			
Jr 85-86	E	NT	NS
General Science			
Fresh 84-85	NS	NS	I
Fresh 85-86	E	S	NS
Soph 84-85	I	E	NS
Soph 85-86	E	I	NS
Jr 84-85	E	I	NS
Jr 85-86	E	E	NS
Sr 84-85	E	NT	NS
Biology			
Fresh 84-85	E	E	NS
Fresh 85-86	I	E	NS
Soph 84-85	I	I	NS
Soph 85-86	I	E	NS
Jr 84-85	I	E	NS
Jr 85-86	S	NT	NS
Sr 84-85	I	I	NS
Chemistry			
Fresh 85-86	E	NT	NS
Soph 84-85	E	NT	NS
Soph 85-86	I	NT	NS
Jr 84-85	I	E	NS
Jr 85-86	I	E	NS
Sr 84-85	E	E	NS
Physics			
Jr 85-86	I	NT	NS
Sr 84-85	I	NT	NS

Note. NS = Not significant; I = Intercept differences; S = Slope differences; E = Equitable test, no significant slope or intercept differences found; NT = Not tested due to small sample sizes.

Table 7. (Concluded)

Course	Sex	Ethnicity	Sex*Ethnicity
Government			
Fresh 84-85	E	NT	NS
Soph 84-85	I	NT	NS
Soph 85-86	I	I	NS
Jr 84-85	I	E	NS
Jr 85-86	I	E	NS
Sr 84-85	E	E	NS
History			
Fresh 84-85	I	E	NS
Fresh 85-86	I	E	NS
Soph 84-85	I	E	NS
Soph 85-86	I	S	NS
Jr 84-85	I	I	NS
Jr 85-86	S	E	NS
Sr 84-85	E	I	NS
Foreign Language			
Fresh 84-85	I	I	NS
Fresh 85-86	I	E	NS
Soph 84-85	I	I	NS
Soph 85-86	I	E	NS
Jr 84-85	I	E	NS
Jr 85-86	I	E	NS
Sr 84-85	E	E	NS
Secretary & Ofc			
Jr 85-86	NT	E	NS
Sr 84-85	NT	E	NS
Typing			
Fresh 84-85	I	E	NS
Fresh 85-86	I	E	NS
Soph 84-85	I	E	NS
Soph 85-86	E	E	NS
Jr 84-85	I	E	NS
Jr 85-86	I	E	NS
Sr 84-85	I	NT	NS
Accounting			
Soph 85-86	I	NT	NS
Jr 84-85	I	NT	NS
Jr 85-86	I	NT	NS
Sr 84-85	I	NT	NS
Home Economics			
Fresh 84-85	I	I	NS
Fresh 85-86	I	E	NS
Soph 84-85	I	I	NS
Soph 85-86	I	E	NS
Jr 84-85	I	E	NS
Jr 85-86	I	E	NS
Sr 84-85	I	E	NS
Computer Program			
Soph 85-86	I	NT	NS
Jr 84-85	E	NT	NS
Jr 85-86	I	NT	NS
Sr 84-85	E	NT	NS

Note. NS = Not significant; I = Intercept differences; S = Slope differences; E = Equitable test, no significant slope or intercept differences found; NT = Not tested due to small sample sizes.

Mechanical and Crafts High School Composite

English I - IV

Freshmen 1984-85. When the model comparisons were made for gender group differences, using the Mechanical high school composite resulted in statistically significant slope differences between the male and female regression lines. The R^2 change for the Model 7 and Model 8 comparison was approximately .007 ($p \leq .001$), with Model 7 being the best prediction equation for this groups English grade. Thus, the change in the English grade per unit change in the ASVAB Mechanical composite was significantly different for this year's freshmen males and females.

Using the Mechanical composite score as the aptitude measure resulted in no statistically significant slope or intercept differences for White, Black and Hispanic freshmen which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the Mechanical composite score in the prediction equation, could be used in the prediction of English course grade for these freshmen.

Freshmen 1985-86. This composite showed statistically significant intercept differences in the prediction equations for the two freshmen gender groups and resulted in an R^2 change of .032 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the Mechanical composite as the predictor variable freshmen females would be consistently underpredicted in their English grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

When the model comparisons were made for ethnic group differences using this ASVAB composite, the results showed statistically significant intercept differences among the White, Black and Hispanic regression lines. With an R^2 change of .009 ($p \leq .001$) for the Model 11 vs Model 12 comparison, Model 11 would be the best prediction equation for this sample. Using the Mechanical composite as the predictor variable White freshmen would be consistently underpredicted in their English grades if the common regression line were used, while Black freshmen would be consistently overpredicted if a common regression line were used. The Hispanic freshmen regression line appeared to be at an equal distance between the White and Black regression lines.

Sophomores 1984-85. When the model comparisons were made for gender group differences, using the Mechanical composite resulted in statistically significant slope differences between the male and female regression lines. The R^2 change for the Model 7 and Model 8 comparison was approximately .015 ($p \leq .001$), with Model 7

being the best prediction equation for this groups English grade. Thus, the change in the English grade per unit change in the ASVAB Mechanical composite was significantly different for this year's sophomore males and females.

When the model comparisons were made for ethnic group differences using this ASVAB composite, the results showed statistically significant intercept differences among the White, Black and Hispanic regression lines. With an R^2 change of .008 ($p \leq .001$) for the Model 11 vs Model 12 comparison, Model 11 would be the best prediction equation for this sample. Using the Mechanical composite as the predictor variable White and Hispanic freshmen would be consistently underpredicted in their English grades if the common regression line were used, while Black freshmen would be consistently overpredicted if a common regression line were used.

Sophomores 1985-86. When the model comparisons were made for gender group differences, using the Mechanical composite resulted in statistically significant slope differences between the male and female regression lines. The R^2 change for the Model 7 and Model 8 comparison was approximately .012 ($p \leq .001$), with Model 7 being the best prediction equation for this group's English grade. Thus, the change in the English grade per unit change in the ASVAB Mechanical composite was significantly different for this year's sophomore males and females.

Using the Mechanical composite score as the aptitude measure also resulted in statistically significant intercept differences for White, Black and Hispanic sophomores, which were the ethnic groups defined in the prediction equations. The R^2 change for the Model 11 and Model 12 comparison was approximately .022 ($p \leq .001$), with Model 11 being the best prediction equation for this sample. Thus, using the Mechanical composite as the predictor variable White and Hispanic sophomores would be consistently underpredicted in their English grades if the common regression line were used, while Black sophomores would be consistently overpredicted if a common regression line were used.

Juniors 1984-85. When the model comparisons were made for gender group differences, using the Mechanical composite resulted in statistically significant slope differences between the male and female regression lines. The R^2 change for the Model 7 and Model 8 comparison was approximately .013 ($p \leq .001$), with Model 7 being the best prediction equation for this group's English grade. Thus, the change in the English grade per unit change in the ASVAB Mechanical composite was significantly different for these junior males and females.

Using the Mechanical composite score as the aptitude measure also resulted in statistically significant intercept differences for White, Black and Hispanic sophomores, which were the ethnic groups defined in the prediction equations. The R^2 change for the Model 11 and Model 12 comparison was approximately .011

($p \leq .001$), with Model 11 being the best prediction equation for this sample. Thus, using the Mechanical composite as the predictor variable White and Hispanic juniors would be consistently underpredicted in their English grades if the common regression line were used, while Black juniors would be consistently overpredicted if a common regression line were used.

Juniors 1985-86. As in the 1984-85 school year, using the Mechanical composite in the equations resulted in statistically significant slope differences between the male and female regression lines. The R^2 change for the Model 7 and Model 8 comparison was approximately .014 ($p \leq .001$), with Model 7 being the best prediction equation for this group's English grade. Thus, the change in the English grade per unit change in the ASVAB Mechanical composite was significantly different for these junior males and females.

Using the Mechanical composite score resulted in no statistically significant slope or intercept differences for the ethnic groups, with this sample including only White and Black individuals. Thus, Model 12, which contained only the unit vector and the Mechanical composite score in the prediction equation, could be used in the prediction of English course grade for these juniors.

Seniors 1984-85. The ASVAB Mechanical composite as the aptitude predictor showed statistically significant slope differences in the prediction equations for the two senior gender groups and resulted in an R^2 change of .009 ($p \leq .001$) for the Model 7 vs Model 8 comparison. Therefore, Model 7 would be the best prediction equation for this sample. The change in the English grade per unit change in the ASVAB Mechanical composite was significantly different for these senior males and females.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the White, Black and Hispanic ethnic group members. Model 12 could be used in the prediction of English course grades obtained by seniors during this school year.

General Math

Freshmen 1984-85. This sample, using the Mechanical high school composite score as the aptitude predictor variable, showed statistically significant intercept differences in the prediction equations for the two freshmen gender groups and resulted in an R^2 change of .021 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the Mechanical composite as the predictor variable freshmen females would be consistently underpredicted in their General Math grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

Using this composite in the prediction equations resulted in no statistically significant slope or intercept differences for the gender group members or the White, Black and Hispanic ethnic group members. Model 12, containing only the unit vector and the Mechanical composite score in the prediction equation, could be used in the prediction of General Math course grade for these freshmen.

Freshmen 1985-86. For this sample, the results also showed no statistically significant slope or intercept differences for the gender group members or the White and Black ethnic group members. Models 9 or 12, containing only the unit vector and the Mechanical composite score in the prediction equation, could be used in the prediction of General Math course grade for these freshmen.

Sophomores 1984-85. This sample also resulted in no statistically significant slope or intercept differences for the gender group members or the White, Black and Hispanic ethnic group members. Models 9 or 12, which contained only the unit vector and the Mechanical composite score in the prediction equation, could be used in the prediction of General Math course grades obtained during this year by sophomores.

Sophomores 1985-86. This sample, using the Mechanical composite in the equations, showed statistically significant intercept differences between the male and female gender subgroups. With an R^2 change of .059 ($p \leq .001$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction system. Thus, if a common regression line using the Mechanical composite were used in the prediction of General Math course grade, female sophomores would be consistently underpredicted on the criterion while male sophomores would be consistently overpredicted.

The results also showed no statistically significant slope or intercept differences between the White and Black ethnic group members regression lines. Thus, Model 12, containing the unit vector and the Mechanical composite score, could be used in predicting General Math course grade for these individuals.

Juniors 1984-85. In this 1984-85 sample, using the Mechanical high school composite score as the aptitude predictor variable, showed statistically significant intercept differences between the male and female gender subgroups. With an R^2 change of .044 ($p \leq .001$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction system. Thus, if a common regression line using the Mechanical composite were used in the prediction of General Math course grade, female juniors would be consistently underpredicted on the criterion while male juniors would be consistently overpredicted.

When the ethnic group differences were investigated using this composite, the results showed no statistically significant slope or intercept differences for the White and Black ethnic group members. Thus, Model 12, which contained only the unit vector and the Mechanical composite score in the prediction equation, could be used in the prediction of General Math course grades obtained in 1984-85 by juniors.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. Using the Mechanical high school composite score as the aptitude predictor variable, showed statistically significant intercept differences between the male and female gender subgroups. With an R^2 change of .061 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction system. Thus, if a common regression line using the Mechanical composite were used in the prediction of General Math course grade, female juniors would be consistently underpredicted on the criterion while male juniors would be consistently overpredicted.

Using the Mechanical composite as the aptitude predictor variable resulted in no statistically significant slope or intercept differences for the ethnic group members. Thus, Model 12, containing the unit vector and the Mechanical composite score, could be used in predicting General Math course grade for these individuals.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. The results showed no statistically significant slope or intercept differences for the gender group or ethnic group members. Again, Models 9 or 12 could be used in the prediction of General Math course grades obtained in 1984-85 by seniors.

Algebra

Freshmen 1984-85. Using the ASVAB Mechanical composite as the predictor variable, the results showed statistically significant intercept differences for the gender group members. With an R^2 change of .074 ($p \leq .001$) for the Model 8 and Model 9 comparison, Model 8 would be the best prediction equation for this sample. Using this composite, freshmen females would be consistently underpredicted in their Algebra grades if a common regression line were used while freshmen males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the ethnic group members, which in this sample were defined as White and Nonwhite. Thus, 12, which contained only the unit vector and the Mechanical composite score in the prediction equation, could be used in the prediction of Algebra course grade for freshmen during this school year.

Freshmen 1985-86. With the Mechanical composite as the aptitude measure the results showed statistically significant intercept differences in the prediction equations for the two gender groups. These comparisons resulted in R^2 changes of .083 ($p \leq .001$) for the Model 8 vs Model 9 tests. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, freshmen females would be consistently underpredicted in their Algebra grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the ethnic group members, which in this sample were defined as White and Nonwhite. Thus, Model 12, which contained only the unit vector and the Mechanical composite score in the prediction equation, could be used in the prediction of Algebra course grade for freshmen during this school year.

Sophomores 1984-85. In this 1984-85 sample, using the Mechanical high school composite score as the aptitude predictor variable, the results showed statistically significant intercept differences for the gender group members. These tests resulted in an R^2 change of .023 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, sophomore females would be consistently underpredicted in their Algebra grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the ethnic group members, which in this sample were defined as White and Nonwhite. Thus, Model 12, which contained only the unit vector and the Mechanical composite score in the prediction equation, could be used in the prediction of Algebra course grade for sophomores during this school year.

Sophomores 1985-86. In this sample, using the Mechanical high school composite, the results also showed statistically significant intercept differences for the gender group members. These tests resulted in an R^2 change of .042 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, sophomore females would be consistently underpredicted in their

Algebra grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Using the Mechanical composite as the predictor resulted in no statistically significant slope or intercept differences for the White and Nonwhite ethnic group members. Thus, Model 12, which contained only the unit vector and the Mechanical composite score in the prediction equation, could be used in the prediction of Algebra course grades obtained in 1985-86 by sophomores.

Juniors 1984-85. In this 1984-85 sample, using the Mechanical high school composite score as the aptitude predictor variable, the results showed statistically significant intercept differences for the gender group members. These tests resulted in an R^2 change of .062 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, junior females would be consistently underpredicted in their Algebra grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the ethnic group members, which in this sample were defined as White and Black. Thus, Model 12, which contained only the unit vector and the Mechanical composite score in the prediction equation, could be used in the prediction of Algebra course grade for juniors during this school year.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Using the ASVAB Mechanical composite as the predictor variable, the results showed statistically significant slope differences in the prediction equations for the two gender groups with an R^2 change of .024 ($p \leq .01$) for the Model 7 vs Model 8 comparison. Therefore, Model 7 would be the best prediction equation for this sample. The change in the Algebra grade per unit change in the ASVAB Mechanical composite was significantly different for these junior males and females.

Using the Mechanical composite as the aptitude predictor resulted in no statistically significant slope or intercept differences for the two ethnic groups. Model 12 could be used in the prediction of Algebra course grade for these juniors.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Using the Mechanical composite in the equations resulted in statistically significant slope differences for the gender group members. With an R^2 change of .024 ($p \leq .01$) for the Model 7 vs Model 8 comparison, Model 7 would be the best prediction system for these seniors. Using the ASVAB Mechanical composite as the predictor variable, the results showed statistically significant slope differences in the prediction equations for the two gender groups with an R^2 change of .007 ($p \leq .01$) for the Model 7 vs Model 8 comparison. Therefore, Model 7 would be the best prediction equation for this sample. The change in the Algebra grade per unit change in the ASVAB Mechanical composite was significantly different for these senior males and females.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the ethnic group members, which in this sample were defined as White and Nonwhite. Thus, Model 12 could be used in the prediction of Algebra course grades obtained by seniors in the 1984-85 school year.

Geometry

Freshmen 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. These tests resulted in an R^2 change of .033 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, freshmen females would be consistently underpredicted in their Geometry grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

Using the Mechanical composite in the prediction equations resulted in no statistically significant slope or intercept differences for the three ethnic groups. Thus, Model 12 could be used in the prediction of Geometry course grades obtained by freshmen in the 1985-86 school year.

Sophomores 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. Using the Mechanical composite in the equations resulted in statistically significant intercept differences fo the gender

groups. With an R^2 change of .056 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction system for these sophomores. Using this composite, sophomore females would be consistently underpredicted in their Geometry grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

As in the Freshmen sample, using the Mechanical composite resulted in no statistically significant slope of intercept differences for the three ethnic groups. Model 12 could be used in the prediction of Geometry course grade for these sophomores.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. With the Mechanical composite as the aptitude measure, the results showed statistically significant intercept differences for the gender group members. With an R^2 change of .079 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction equation for Geometry course grade for these sophomores. Using this composite, sophomore females would be consistently underpredicted in their Geometry grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

When the model comparisons were made for ethnic group differences, using the Mechanical composite within the equations, the results showed statistically significant intercept differences between the White and Black regression lines. The R^2 change for the Model 11 and Model 12 comparison was approximately .027 ($p \leq .01$), with Model 11 being the best prediction equation for this sample's Geometry grade. Thus, White sophomores would be consistently underpredicted in their Geometry grades if the common regression line were used, while Black sophomores would be consistently overpredicted if a common regression line were used.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. With the Mechanical composite as the aptitude measure, the results showed statistically significant slope differences for the gender group members. With an R^2 change of .019 ($p \leq .01$) for the Model 7 vs Model 8 comparison, Model 7 would be the best prediction equation for Geometry course grade for these juniors. The change in the Algebra grade per unit change in the ASVAB Mechanical composite was significantly different for these junior males and females.

When the tests were conducted for ethnic group differences using the Mechanical predictor composite, the results showed no statistically significant slope of intercept differences for the ethnic group members. Model 12 could be used in the prediction of Geometry course grade for these juniors.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. With the Mechanical composite as the aptitude measure, the results showed statistically significant intercept differences for the gender group members. With an R^2 change of .069 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction equation for Geometry course grade for these sophomores. Using this composite, junior females would be consistently underpredicted in their Geometry grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

When the model comparisons were made for ethnic group differences, using the Mechanical composite, the results showed statistically significant intercept differences between the White and Nonwhite regression lines. The R^2 change for the Model 11 and Model 12 comparison was approximately .078 ($p \leq .01$), with Model 11 being the best prediction equation for this sample's Geometry grade. Thus, using this composite, White juniors would be consistently underpredicted in their Geometry grades if the common regression line were used, while Nonwhite juniors would be consistently overpredicted if a common regression line were used.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. In this sample, the Mechanical composite equations resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. Model 9 or 12 could be used in the prediction of Geometry course grade for these seniors.

General Science

Freshmen 1984-85. Using the Mechanical high school composite with this sample, the results showed no statistically significant differences between the Model 2 vs Model 4 comparison. Model 4 included the unit vector, the Mechanical composite score, and the sex by ethnicity two-way interaction predictor variables, with ethnicity membership being defined as White, Black and Hispanic. With Model 4 as the best prediction equation for this sample's General Science grade, no differential validity was evidenced for the ethnicity by Mechanical score two-way interaction variables or the sex by Mechanical score two-way interaction variables.

Freshmen 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. With the Mechanical composite as the aptitude measure, the results showed statistically significant intercept differences for the gender group members. With an R^2 change of .026 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction equation for General Science course grade for these freshmen. Using this composite, freshmen females would be consistently underpredicted in their General Science grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

Using the Mechanical composite as the aptitude predictor variable resulted in no statistically significant intercept differences for the ethnic group members. Model 12, which contained the unit vector and the Mechanical composite score, could be used in the prediction of General Science course grades obtained by freshmen in 1985-86.

Sophomores 1984-85. In this 1984-85 sample, using the Mechanical high school composite score as the aptitude predictor variable, the results showed statistically significant intercept differences for the gender group members. These tests resulted in an R^2 change of .079 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, sophomore females would be consistently underpredicted in their General Science grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the ethnic group members, which in this sample were defined as White and Nonwhite. Thus, Model 12, which contained only the unit vector and the Mechanical composite score in the prediction equation, could be used in the prediction of General Science course grade for these sophomores during this school year.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. Again, using the Mechanical composite as the aptitude aptitude measure resulted in statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .057 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's General Science grade. Thus, using this composite, sophomore females

would be consistently underpredicted in their General Science grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

When the model comparisons were made for ethnic group differences, using the Mechanical composite, the results showed statistically significant intercept differences between the White and Black regression lines. The R^2 change for the Model 11 and Model 12 comparison was approximately .040 ($p \leq .01$), with Model 11 being the best prediction equation for this sample's General Science grade. Thus, using this composite, White sophomores would be consistently underpredicted in their General Science grades if the common regression line were used, while Black sophomores would be consistently overpredicted if a common regression line were used.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Again, using the Mechanical composite within the prediction equation resulted in statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .042 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's General Science grade. Thus, using this composite, junior females would be consistently underpredicted in their General Science grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

This Mechanical composite prediction equation resulted in no statistically significant slope or intercept differences for the ethnic group members. Thus, Model 12 could be used in the prediction of General Science course grades obtained by juniors in 1985-86.

Seniors 1984-85. This sample tested only for gender group differences. Using the Mechanical composite within the prediction equation resulted in statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .044 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's General Science grade. Thus senior females would be consistently underpredicted in their General Science grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

Biology I - II

Freshmen 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Using the Mechanical composite within the prediction equation resulted in statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .061 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Biology grade. Thus, using this composite, freshmen females would be consistently underpredicted in their Biology grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

This Mechanical composite equation also resulted in no statistically significant slope or intercept differences for the ethnic group members. Again, Model 12 could be used in the prediction of Biology course grades obtained by freshmen in 1984-85.

Freshmen 1985-86. The use of this composite resulted in statistically significant intercept differences in the prediction equations for the two freshmen gender groups, with an R^2 change of .060 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the Mechanical composite as the predictor variable, freshmen females would be consistently underpredicted in their Biology grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score, the results showed no statistically significant slope or intercept differences for White and Black freshmen, which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the Mechanical composite score in the prediction equation, could be used in the prediction of Biology course grade for these freshmen.

Sophomores 1984-85. The use of this composite with this sample resulted in statistically significant slope differences in the prediction equations for the two freshmen gender groups, with an R^2 change of .010 ($p \leq .001$) for the Model 7 vs Model 8 comparison. Therefore, Model 7 would be the best prediction equation for this sample. The change in the Biology grade per unit change in the ASVAB Mechanical composite was significantly different for these sophomore males and females.

When the tests for ethnic group differences were conducted using the Mechanical composite as the predictor composite, the results showed no statistically significant slope or intercept

differences in the prediction equations for the White, Black and Hispanic ethnic groups. Thus, Model 12 could be used in the prediction of Biology grades obtained by sophomores during this school year.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. These tests resulted statistically significant intercept differences between the gender group members and an R^2 change of .101 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, sophomore females would be consistently underpredicted in their Biology grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the three ethnic groups. Thus, Model 12, which contained only the unit vector and the Mechanical composite score in the prediction equation, could be used in the prediction of Biology course grade for these sophomores during this school year.

Juniors 1984-85. The use of this composite resulted in statistically significant intercept differences in the prediction equations for the two junior gender groups, with an R^2 change of .079 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the Mechanical composite as the predictor variable, junior females would be consistently underpredicted in their Biology grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score, the results showed no statistically significant slope or intercept differences for White and Nonwhite juniors, which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the Mechanical composite score in the prediction equation, could be used in the prediction of Biology course grade for these juniors.

Juniors 1985-86. This sample tested only for gender group differences. Using the Mechanical composite as the predictor variable resulted in statistically significant intercept differences for the gender groups. With an R^2 change of .127 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction equation of Biology course grade for these juniors. Using the Mechanical composite as the predictor variable, junior females would be consistently underpredicted in

their Biology grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. The use of this Mechanical composite in the equations resulted in statistically significant intercept differences for the gender and two ethnic group members. With R2 changes of .093 and .063 ($p \leq .01$) for the Model 8 vs Model 9 and the Model 11 vs Model 12 comparisons, Models 8 and 11 would be the best prediction equations for these seniors. Using this composite, senior females would be consistently underpredicted in their Biology grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used. Conversely, if a common regression line using the Mechanical composite as the aptitude measure were used in the prediction of Biology course grade, White seniors would be consistently underpredicted on this criterion while Black seniors would be consistently overpredicted.

Chemistry I - II

Freshmen 1985-86. This sample tested only for gender group differences. Using the Mechanical composite in the equations, the results showed statistically significant intercept differences for the gender groups. With an R^2 change of .060 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction equation of Chemistry course grade for these freshmen. Using the Mechanical composite as the predictor variable, freshmen females would be consistently underpredicted in their Chemistry grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

Sophomores 1984-85. This sample also tested only for gender group differences. Again, with the Mechanical composite in the equations, the results showed statistically significant intercept differences for the gender groups. With an R^2 change of .065 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 could be used in the prediction of Chemistry course grades obtained by these sophomores. Sophomore females would be consistently underpredicted in their Chemistry grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Sophomores 1985-86. This sample tested only for gender group differences. Using the Mechanical composite as the predictor variable, the results indicated statistically significant intercept differences for the gender groups. With an R^2 change

of .073 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction system of Chemistry course grade for these sophomores. Using this composite, sophomore females would be consistently underpredicted in their Chemistry grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The use of this Mechanical composite in the equations resulted in statistically significant intercept differences for the gender group members. With R^2 changes of .091 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction equation for these juniors. Using this composite, junior females would be consistently underpredicted in their Chemistry grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score, the results showed no statistically significant slope or intercept differences for White and Nonwhite juniors, which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the Mechanical composite score in the prediction equation, could be used in the prediction of Chemistry course grade for these juniors.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The use of this composite resulted in statistically significant intercept differences in the prediction equations for the two junior gender groups, with an R^2 change of .103 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the Mechanical composite as the predictor variable, junior females would be consistently underpredicted in their Chemistry grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score, the results again showed no statistically significant slope or intercept differences for White and Nonwhite juniors, which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the Mechanical composite score in the prediction equation, could be used in the prediction of Chemistry course grade for these juniors.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Using the Mechanical composite, the results showed no statistically significant slope or intercept differences for the gender or White and Nonwhite ethnic group members. Model 9 or 12 could be used in the prediction of Chemistry course grades obtained by seniors during this school year.

Physics I - II

Seniors 1984-85. This sample tested only for gender group differences. The Mechanical composite equations again resulted in statistically significant intercept differences for the gender groups. An R^2 change of .085 ($p \leq .01$) for the Model 8 vs Model 9 comparison was evidenced; therefore, Model 8 would be the best prediction equation for this sample. Using the Mechanical composite as the predictor variable, senior females would be consistently underpredicted in their Physics grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

Government and Civics

Freshmen 1984-85. This sample tested only for gender group differences. The Mechanical composite prediction equations resulted in statistically significant intercept differences for the gender groups. Thus, with an R^2 change of .042 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best predictor for this group's Government course grade. Freshmen females would be consistently underpredicted in their Government grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

Sophomore 1984-85. This sample tested only for gender group differences. Using the Mechanical composite as the predictor variable, the results showed statistically significant intercept differences for the gender groups. An R^2 change of .071 ($p \leq .01$) for the Model 8 vs Model 9 comparison was evidenced; therefore, Model 8 would be the best prediction equation for this sample. Using the Mechanical composite as the predictor variable, sophomore females would be consistently underpredicted in their Government grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White

and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The use of this Mechanical composite in the equations resulted in statistically significant intercept differences for the gender and two ethnic group members. With R^2 changes of .047 and .036 ($p \leq .01$) for the Model 8 vs Model 9 and the Model 11 vs Model 12 comparisons, Models 8 and 11 would be the best prediction equations for these sophomores. Using this composite, sophomore females would be consistently underpredicted in their Government grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used. Conversely, if a common regression line using the Mechanical composite as the aptitude measure were used in the prediction of Government course grade, White sophomores would be consistently underpredicted on this criterion, while Hispanic sophomores would be consistently overpredicted.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The use of this Mechanical composite in the equations resulted in statistically significant intercept differences for the gender and ethnic subgroup. With R^2 changes of .077 ($p \leq .01$) for the Model 8 vs Model 9 comparison and .015 for the Model 11 vs 12 comparison, Models 8 and 11 would be the best prediction equations for these juniors. Using this composite, junior females would be consistently underpredicted in their Government grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used. Conversely, White juniors would be consistently underpredicted in their Government grades if the common regression line were used, while Nonwhite juniors would be consistently overpredicted if a common regression line were used.

Juniors 1985-86. This sample, using the Mechanical high school composite score as the aptitude predictor variable, resulted in statistically significant slope differences for the gender group members. With an R^2 change of .020 ($p \leq .001$) for the Model 7 vs Model 8 comparison, Model 7 was the best prediction equation for this sample. The change in the Government grade per unit change in the ASVAB Mechanical composite was significantly different for these junior males and females.

Using this ASVAB composite score, the results showed no statistically significant slope or intercept differences for White and Black juniors, which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the Mechanical composite score in the prediction equation, could be used in the prediction of Government course grade for these juniors.

Seniors 1984-85. Similar to some of the previous samples, using the Mechanical composite score as the aptitude predictor variable, resulted in statistically significant intercept differences for the gender group members. With R^2 change of .052 ($p \leq .001$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction equation for these seniors. Using this composite, senior females would be consistently underpredicted in their Government grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

When ethnic group differences were investigated using this composite, the results showed no statistically significant slope or intercept differences for the White and Black ethnic group members. Again, Model 12, which contained only the unit vector and the Mechanical composite score in the prediction equation, could be used in the prediction of Government course grades for these seniors.

History

Freshmen 1984-85. The use of the ASVAB Mechanical composite as the aptitude predictor variable showed statistically significant intercept differences in the prediction equations for the two freshmen gender groups and resulted in an R^2 change of .077 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, freshmen females would be consistently underpredicted in their History grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

The use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White, Black and Hispanic ethnic group members. Thus, Model 12, which contained only the unit vector and the Mechanical composite score in the prediction equation, could be used in the prediction of History course grades obtained by freshmen during this school year.

Freshmen 1985-86. This sample, using the Mechanical high school composite score as the aptitude predictor variable, resulted in statistically significant intercept differences in the prediction equations for the two freshmen gender groups and resulted in an R^2 change of .042 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, freshmen females would be consistently underpredicted in their History grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

The use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Black ethnic group members. Thus, Model 12, which contained only the unit vector and the Mechanical composite score in the prediction equation, could be used in the prediction of History course grades obtained by freshmen during this school year.

Sophomores 1984-85. Using the Mechanical high school composite score as the aptitude predictor variable, the results showed statistically significant intercept differences in the prediction equations for the two sophomore gender groups and resulted in an R^2 change of .061 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, sophomore females would be consistently underpredicted in their History grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

The use of this ASVAB composite in the equations also resulted in statistically significant intercept differences for the White and Black ethnic group members. With an R^2 change of .008 ($p \leq .001$) for the Model 11 vs Model 12 comparison. Therefore, Model 11 would be the best prediction equation for this sample. Using this composite as the predictor variable, White sophomores would be consistently underpredicted in their History grades if the common regression line were used, while Black sophomores would be consistently overpredicted if a common regression line were used.

Sophomores 1985-86. This sample, using the Mechanical high school composite score as the aptitude predictor variable, resulted in statistically significant slope differences for the gender group members. With an R^2 change of .007 ($p \leq .001$) for the Model 7 vs Model 8 comparison, Model 7 was the best prediction equation for this sample. The change in the History grade per unit change in the ASVAB Mechanical composite was significantly different for these sophomore males and females.

The use of this ASVAB composite in the equations also resulted in statistically significant intercept differences for the White, Black and Hispanic ethnic group members. With an R^2 change of .022 ($p \leq .001$) for the Model 11 vs Model 12 comparison. Therefore, Model 11 would be the best prediction equation for this sample. Using this composite as the predictor variable, White and Hispanic sophomores would be consistently underpredicted in their History grades if the common regression line were used, while Black sophomores would be consistently overpredicted if a common regression line were used.

Juniors 1984-85. Like the previous sample, using the Mechanical high school composite score as the aptitude predictor variable resulted in statistically significant slope differences

in the prediction equations for the two junior gender groups. With an R^2 change of .009 ($p \leq .001$) for the Model 7 vs Model 8 comparison, Model 7 would be the best prediction equation for this sample. Thus, the change in the History grade per unit change in the ASVAB Mechanical composite was significantly different for these junior males and females.

The use of this ASVAB composite in the equations resulted in statistically significant intercept differences for the White and Black ethnic group members. An R^2 change of .017 ($p \leq .001$) for the Model 11 vs Model 12 comparison was evidenced. Therefore, Model 11 would be the best prediction equation for this sample. Using this composite as the predictor variable, White juniors would be consistently underpredicted in their History grades if the common regression line were used, while Black juniors would be consistently overpredicted if a common regression line were used.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. Using the Mechanical high school composite score as the aptitude predictor variable, the results showed statistically significant slope differences in the prediction equations for the two junior gender groups and resulted in an R^2 change of .014 ($p \leq .01$) for the Model 7 vs Model 8 comparison. Therefore, Model 7 would be the best prediction equation for this sample. Again, the change in the History grade per unit change in the Mechanical high school composite was significantly different for freshmen males and females.

The use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Black ethnic group members. Thus, Model 12, which contained only the unit vector and the Mechanical composite score in the prediction equation, could be used in the prediction of History course grades obtained by juniors during this school year.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. The use of the Mechanical composite in the prediction equations resulted in statistically significant intercept differences for the gender group members. An R^2 change of .061 ($p \leq .01$) for the Model 8 vs Model 9 comparison was evidenced. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, senior females would be consistently underpredicted in their History grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

Statistically significant intercept differences also resulted between the White and Black ethnic subgroups. With an R^2 change of .036 ($p \leq .01$) for the Model 11 vs Model 12 comparison, Model 11 would be the best prediction system. Thus, if a common regression line using the Mechanical composite as the aptitude measure were used in the prediction of History course grade, White seniors would be consistently underpredicted on this criterion while Black seniors would be consistently overpredicted.

Foreign Language

Freshmen 1984-85. After collapsing across ethnic groups and then collapsing across gender groups, the use of the ASVAB Mechanical composite as the aptitude predictor variable showed statistically significant intercept differences in the prediction equations for the two freshmen gender groups. The results showed an R^2 change of .090 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the aptitude predictor variable, freshmen females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

The use of this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences in the prediction equations for the White, Black and Hispanic ethnic groups. Therefore, Model 12, containing the unit vector and the Mechanical composite score, could be the best prediction equation for this sample's Foreign Language grades.

Freshmen 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. When the model comparisons were made for gender group differences, using the Mechanical composite within the equations, the results showed statistically significant slope differences between the male and female regression lines. The R^2 change for the Model 7 and Model 8 comparison was approximately .011 ($p \leq .01$), with Model 7 being the best prediction equation for this sample's Foreign Language grade. Thus, the change in the Foreign Language grade per unit change in the Mechanical high school composite was significantly different for freshmen males and females.

When the model comparisons were made for ethnic group differences, using the Mechanical composite within the equations, the results showed no statistically significant slope or intercept differences between the White, Black and Hispanic regression lines. Model 12, which contai.ed only the unit vector

and the Mechanical composite score in the prediction equation, could be used in the prediction of Foreign Language course grades obtained by freshmen during this school year.

Sophomores 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. Again, the Mechanical prediction equations showed statistically significant slope differences between the male and female regression lines. The R^2 change for the Model 7 and Model 8 comparison was approximately .013 ($p\leq.01$), with Model 7 being the best prediction equation for this sample's Foreign Language grade. The change in the Foreign Language grade per unit change in the Mechanical high school composite was significantly different for sophomore males and females.

When the model comparisons were made for ethnic group differences using of this Mechanical composite in the prediction equations, the results showed no statistically significant slope or intercept differences between the White, Black and Hispanic regression lines. Model 12, which contained only the unit vector and the Mechanical composite score in the prediction equation, could be used in the prediction of Foreign Language course grades obtained by sophomores during this school year.

Sophomores 1985-86. Using the ASVAB Mechanical composite as the aptitude predictor in the equations showed statistically significant intercept differences in the prediction equations for the two sophomore gender groups and resulted in an R^2 change of .086 ($p\leq.01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite sophomore females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

The use of this ASVAB composite score in the prediction equations resulted in no statistically significant slope or intercept differences for the White and Nonwhite ethnic group members. Thus, Model 12, which contained only the unit vector and the Mechanical composite score in the prediction equation, could be used in the prediction of Foreign Language course grades obtained by sophomores during this school year.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The use of the Mechanical composite as a predictor measure showed statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and

Model 9 comparison was approximately .124 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Foreign Language grade. Thus, using this predictor composite, junior females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

When the model comparisons were made for ethnic group differences, the Mechanical predictor composite resulted in no statistically significant slope or intercept differences for the ethnic group members. Model 12 could be used in the prediction of Foreign Language course grades obtained by juniors during this school year.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The Mechanical prediction equations resulted in statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .094 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Foreign Language grade. Thus, using this predictor composite, junior females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

When testing for ethnic group differences, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Hispanic ethnic group members. Thus, Model 12, which contained only the unit vector and the Mechanical composite score in the prediction equation, could be used in the prediction of Foreign Language course grades obtained by juniors during this school year.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Hispanic ethnic group differences were studied by not including the gender variables in the equations. Again, the Mechanical prediction equations resulted in statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .044 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Foreign Language grade. Thus, using this predictor composite, senior females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

The Mechanical composite prediction equations resulted in no statistically significant slope or intercept differences for the two ethnic groups. Model 12 could be used in the prediction of Foreign Language course grade for these individuals.

Secretary and Office Education

Juniors 1985-86. This sample tested only for White and Nonwhite ethnic group differences. Using the Mechanical composite as the aptitude predictor variable, the results showed no statistically significant slope or intercept differences for the ethnic groups. Thus, Model 12, which contained the unit vector and the ASVAB Mechanical composite, could be used in the prediction of this course grade for these juniors.

Seniors 1984-85. This sample tested only for White and Nonwhite ethnic group differences. Again, using the Mechanical composite prediction equations the results showed no statistically significant slope or intercept differences for the ethnic groups. Thus, Model 12, which contained the unit vector and the ASVAB Mechanical composite, could be used in the prediction of Secretary and Office course grades obtained by these seniors.

Typing and Word Processing

Freshmen 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The Mechanical prediction equations resulted in statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .040 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Typing grade. Thus, using this predictor composite, freshmen females would be consistently underpredicted in their Typing grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

When testing for ethnic group differences, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White, Black and Hispanic ethnic group members. Thus, Model 12, which contained only the unit vector and the Mechanical composite score in the prediction equation, could be used in the prediction of Typing course grades obtained by freshmen during this school year.

Freshmen 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The Mechanical prediction equations resulted in statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .054 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Typing grade. Thus, using this predictor composite, freshmen females would be consistently underpredicted in their Typing grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

When testing for ethnic group differences, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Hispanic ethnic group members. Thus, Model 12, which contained only the unit vector and the Mechanical composite score in the prediction equation, could be used in the prediction of Typing course grades obtained by freshmen during this school year.

Sophomores 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The results again showed statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .077 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Typing grade. Thus, using this predictor composite, sophomore females would be consistently underpredicted in their Typing grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Again, when testing for ethnic group differences, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White, Black and Hispanic ethnic group members. Thus, Model 12, which contained only the unit vector and the Mechanical composite score in the prediction equation, could be used in the prediction of Typing course grades obtained by sophomores during this school year.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. The Mechanical prediction equations showed statistically significant slope differences between the male and female regression lines. The R^2 change for

the Model 7 and Model 8 comparison was approximately .026 ($p \leq .01$), with Model 7 being the best prediction equation for this sample's Typing grade. The change in the Typing grade per unit change in the Mechanical high school composite was significantly different for sophomore males and females.

Using the Mechanical composite as the aptitude predictor variable, the results showed no statistically significant slope or intercept differences for the ethnic group members. Again, Model 12 could be used in the prediction of Typing course grade for these sophomores.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. As in the sophomore 1984-85 sample, the results showed statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .118 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Typing grade. Thus, using this predictor composite, junior females would be consistently underpredicted in their Typing grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Again, when testing for ethnic group differences, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Black ethnic group members. Thus, Model 12, which contained only the unit vector and the Mechanical composite score in the prediction equation, could be used in the prediction of Typing course grades obtained by juniors during this school year.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. As in the previous sample, the results showed statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .071 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Typing grade. Thus, using this predictor composite, junior females would be consistently underpredicted in their Typing grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Again, when testing for ethnic group differences, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Nonwhite ethnic group members. Thus, Model 12, which

contained only the unit vector and the Mechanical composite score in the prediction equation, could be used in the prediction of Typing course grades obtained by juniors during this school year.

Seniors 1984-85. This sample tested only for gender group differences. The Mechanical composite equations resulted in statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .052 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Typing grade. Thus, using this predictor composite, senior females would be consistently underpredicted in their Typing grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

Accounting and Bookkeeping

Sophomores 1985-86. This sample tested only for gender group differences. The use of the ASVAB Mechanical composite as the predictor variable showed statistically significant intercept differences in the prediction equations for the two sophomore gender groups and resulted in an R^2 change of .095 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, sophomore females would be consistently underpredicted in their Accounting grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Juniors 1984-85. This sample also tested only for gender group differences. Again, using the Mechanical composite prediction equations, the results showed statistically significant intercept differences in the prediction equations for the two junior gender groups and resulted in an R^2 change of .144 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, junior females would be consistently underpredicted in their Accounting grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Juniors 1985-86. This sample tested for gender group differences. As in the previous sample, using the Mechanical composite prediction equations, the results showed statistically significant intercept differences in the prediction equations for the two junior gender groups and resulted in an R^2 change of .069 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, junior females would be consistently underpredicted in their Accounting grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Seniors 1984-85. Like the junior samples, this sample tested for gender group differences. Using the Mechanical composite prediction equations, the results showed statistically significant intercept differences in the prediction equations for the two gender groups and resulted in an R^2 change of .098 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, senior females would be consistently underpredicted in their Accounting grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

Home Economics

Freshmen 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. The prediction equations with the ASVAB Mechanical composite showed statistically significant intercept differences in the prediction equations for the two freshmen gender groups and resulted in an R^2 change of .086 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, freshmen females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB Mechanical composite, the results showed statistically significant intercept differences in the prediction equations for the two ethnic groups. An R^2 change of .081 ($p \leq .01$) for the Model 11 vs Model 12 comparison was evidenced; and Model 11 could be used in the prediction of Home Economics course grade for these freshmen. Using this predictor composite, freshmen Whites would be consistently underpredicted in their Home Economics grades if the common regression line were used, while freshmen Blacks would be consistently overpredicted if a common regression line were used.

Freshmen 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Using the Mechanical composite as a predictor variable, the results showed statistically significant intercept differences for these two freshmen gender groups and resulted in an R^2 change of .116 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the aptitude measure, freshmen females would be consistently underpredicted in their Home Economics grades if the

common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB Mechanical composite, the results showed no statistically significant slope or intercept differences in the prediction equations for the two ethnic groups. Model 12 could be used in the prediction of Home Economics course grade for these freshmen.

Sophomore 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The prediction equations with the ASVAB Mechanical composite showed statistically significant intercept differences in the prediction equations for the two gender groups and resulted in an R^2 change of .102 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, sophomore females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB Mechanical composite, the results showed statistically significant intercept differences in the prediction equations for the two ethnic groups. An R^2 change of .047 ($p \leq .01$) for the Model 11 vs Model 12 comparison was evidenced; and Model 11 could be used in the prediction of Home Economics course grade for these sophomores. Using this predictor composite, White sophomores would be consistently underpredicted in their Home Economics grades if the common regression line were used, while Nonwhite sophomores would be consistently overpredicted if a common regression line were used.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The use of the Mechanical composite prediction equations resulted in statistically significant intercept differences for the gender group members and resulted in an R^2 change of .097 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, sophomore females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB Mechanical composite, the results showed no statistically significant slope or intercept differences in the prediction equations for the two ethnic groups. Model 12 could be used in the prediction of Home Economics course grade for these sophomores.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The use of the Mechanical composite prediction equations resulted in statistically significant intercept differences for the gender group members and resulted in an R^2 change of .069 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, junior females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB Mechanical composite, the results showed no statistically significant slope or intercept differences in the prediction equations for the two ethnic groups. Model 12 could be used in the prediction of Home Economics course grade for these juniors.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Again, this sample, using the Mechanical composite equations, resulted in statistically significant intercept differences for the gender group members. An R^2 change of .163 ($p \leq .01$) for the Model 8 vs Model 9 comparison was evidenced; therefore, Model 8 would be the best prediction equation for this sample. Using this predictor composite junior females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB Mechanical composite, the results indicated no statistically significant slope or intercept differences in the prediction equations for the two ethnic groups. Model 12 could be used in the prediction of Home Economics course grade for these juniors.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White

and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. As in the junior 1985-86 sample, the Mechanical composite equations resulted in statistically significant intercept differences for the gender group members. An R^2 change of .090 ($p \leq .01$) was obtained for the Model 8 vs Model 9 comparison; therefore, Model 8 would be the best prediction equation for this sample. Using this composite senior females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

The tests for ethnic group differences were conducted using the ASVAB Mechanical composite, and the results showed no statistically significant slope or intercept differences in the prediction equations for the two ethnic groups. Model 12 could be used in the prediction of Home Economics course grade for these seniors.

Computer Programming

Sophomores 1985-86. This sample tested only for gender group differences. Using the Mechanical composite as a predictor variable, the results showed statistically significant intercept differences for the gender group members. An R^2 change of .132 ($p \leq .01$) was obtained for the Model 8 vs Model 9 comparison; therefore, Model 8 would be the best prediction equation for this sample. Using this composite sophomore females would be consistently underpredicted in their Computer Programming grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Juniors 1984-85. Like the sophomore sample, this sample tested for gender group differences. Again, using the Mechanical composite as a predictor variable, the results showed statistically significant intercept differences for the gender group members. An R^2 change of .104 ($p \leq .01$) was obtained for the Model 8 vs Model 9 comparison; therefore, Model 8 would be the best prediction equation for this sample. Using this composite junior females would be consistently underpredicted in their Computer Programming grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Juniors 1985-86. Collapsing across the ethnic groups, the model comparisons tested for gender group differences. Usin the ASVAB Mechanical predictor composite, the results showed statistically significant intercept differences in the prediction equations for the two junior gender groups and resulted in an R^2 change of .167 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite junior females would be

consistently underpredicted in their Computer Programming grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Seniors 1984-85. As in the previous Computer Programming samples, this sample tested for gender group differences. The Mechanical composite prediction equations resulted in no statistically significant slope or intercept differences for the gender groups. Thus, Model 9, which contained the unit vector and the ASVAB Mechanical composite, could be used in the prediction of Computer Programming course grades obtained by seniors for this year.

Table 8. Summary of Equity Findings for Prediction of High School Course Grades by Mechanical & Crafts High School Composite

Course		Sex	Ethnicity	Sex*Ethnicity
English I-IV				
Fresh	84-85	S	E	NS
Fresh	85-86	I	I	NS
Soph	84-85	S	I	NS
Soph	85-86	S	I	NS
Jr	84-85	S	I	NS
Jr	85-86	S	E	NS
Sr	84-85	E	E	NS
General Math				
Fresh	84-85	I	E	NS
Fresh	85-86	E	E	NS
Soph	84-85	E	E	NS
Soph	85-86	I	E	NS
Jr	84-85	I	E	NS
Jr	85-86	I	E	NS
Sr	84-85	E	E	NS
Algebra				
Fresh	84-85	I	E	NS
Fresh	85-86	I	E	NS
Soph	84-85	I	E	NS
Soph	85-86	I	E	NS
Jr	84-85	I	E	NS
Jr	85-86	S	E	NS
Sr	84-85	S	E	NS
Geometry				
Fresh	85-86	I	E	NS
Soph	84-85	I	E	NS
Soph	85-86	I	I	NS
Jr	84-85	S	E	NS
Jr	85-86	I	I	NS
Sr	84-85	E	E	NS

Note. NS = Not significant; I = Intercept differences; S = Slope differences; E = Equitable test, no significant slope or intercept differences found; NT = Not tested due to small sample sizes.

Table 8. (Continued)

Course	Sex	Ethnicity	Sex*Ethnicity
General Science			
Fresh 84-85	NS	NS	I
Fresh 85-86	I	E	NS
Soph 84-85	I	E	NS
Soph 85-86	I	I	NS
Jr 85-86	I	E	NS
Sr 84-85	I	NT	NS
Biology			
Fresh 84-85	I	E	NS
Fresh 85-86	I	E	NS
Soph 84-85	S	E	NS
Soph 85-86	I	E	NS
Jr 84-85	I	E	NS
Jr 85-86	I	NT	NS
Sr 84-85	I	I	NS
Chemistry			
Fresh 85-86	I	NT	NS
Soph 84-85	I	NT	NS
Soph 85-86	I	NT	NS
Jr 84-85	I	E	NS
Jr 85-86	I	E	NS
Sr 84-85	E	E	NS
Physics			
Sr 84-85	I	NT	NS
Government			
Fresh 84-85	I	NT	NS
Soph 84-85	I	NT	NS
Soph 85-86	I	I	NS
Jr 84-85	I	I	NS
Jr 85-86	S	E	NS
Sr 84-85	I	E	NS
History			
Fresh 84-85	I	E	NS
Fresh 85-86	I	E	NS
Soph 84-85	I	I	NS
Soph 85-86	S	I	NS
Jr 84-85	S	I	NS
Jr 85-86	S	E	NS
Sr 84-85	I	I	NS
Foreign Language			
Fresh 84-85	I	E	NS
Fresh 85-86	S	E	NS
Soph 84-85	S	E	NS
Soph 85-86	I	E	NS
Jr 84-85	I	E	NS
Jr 85-86	I	E	NS
Sr 84-85	I	E	NS
Secretary & Ofc			
Jr 85-86	NT	E	NS
Sr 84-85	NT	E	NS

Note. NS = Not significant; I = Intercept differences; S = Slope differences; E = Equitable test, no significant slope or intercept differences found; NT = Not tested due to small sample sizes.

Table 8. (Concluded)

Course	Sex	Ethnicity	Sex*Ethnicity
Typing			
Fresh 84-85	I	E	NS
Fresh 85-86	I	E	NS
Soph 84-85	I	E	NS
Soph 85-86	S	E	NS
Jr 84-85	I	E	NS
Jr 85-86	I	E	NS
Sr 84-85	I	NT	NS
Accounting			
Soph 85-86	I	NT	NS
Jr 84-85	I	NT	NS
Jr 85-86	I	NT	NS
Sr 84-85	I	NT	NS
Home Economics			
Fresh 84-85	I	I	NS
Fresh 85-86	I	E	NS
Soph 84-85	I	I	NS
Soph 85-86	I	E	NS
Jr 84-85	I	E	NS
Jr 85-86	I	E	NS
Sr 84-85	I	E	NS
Computer Program			
Soph 85-86	I	NT	NS
Jr 84-85	I	NT	NS
Jr 85-86	I	NT	NS
Sr 84-85	E	NT	NS

Note. NS = Not significant; I = Intercept differences; S = Slope differences; E = Equitable test, no significant slope or intercept differences found; NT = Not tested due to small sample sizes.

Business and Clerical High School Composite

English I - IV

Freshmen 1984-85. Using the Business high school composite with this sample, the results showed statistically significant differences between the Model 2 vs Model 4 comparison. However, the Model 2 vs Model 5 comparison showed that these two models were not significantly different. Model 5 included the unit vector, the Business score by ethnicity two-way interaction predictor variables, and the sex by ethnicity two-way interaction predictor variables. With Model 5 as the best prediction equation for this sample's English grade, no differential validity for the gender by Busniess score two-way interaction predictor variables was evidenced.

Freshmen 1985-86. This composite showed statistically significant intercept differences in the prediction equations for the two freshmen gender groups and resulted in an R^2 change of .064 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the Business composite as the predictor variable freshmen

females would be consistently underpredicted in their English grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

When the model comparisons were made for ethnic group differences using this ASVAB composite, the results showed statistically significant slope differences among the White, Black and Hispanic regression lines. With an R^2 change of .016 ($p \leq .001$) for the Model 10 vs Model 11 comparison, Model 10 would be the best prediction equation for this sample. Thus, the change in the English grade per unit change in the Business high school composite was significantly different for White, Black and Hispanic freshmen.

Sophomores 1984-85. When the model comparisons were made for gender group differences, using the Business composite resulted in statistically significant slope differences between the male and female regression lines. The R^2 change for the Model 7 and Model 8 comparison was approximately .004 ($p \leq .001$), with Model 7 being the best prediction equation for this groups English grade. Thus, the change in the English grade per unit change in the ASVAB Business composite was significantly different for this year's sophomore males and females.

When the model comparisons were made for ethnic group differences using this ASVAB composite, the results showed no statistically significant slope or intercept differences among the White, Black and Hispanic regression lines. Thus, Model 12, which contained the unit vector and the ASVAB Business composite, could be used in the prediction of English course grades obtained by sophomores for this year.

Sophomores 1985-86. When the model comparisons were made for gender group differences, using the Business composite resulted in statistically significant slope differences between the male and female regression lines. The R^2 change for the Model 7 and Model 8 comparison was approximately .027 ($p \leq .001$), with Model 8 being the best prediction equation for this group's English grade. Using the Business composite as the predictor variable, sophomore females would be consistently underpredicted in their English grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Using the Business composite score as the aptitude measure also resulted in statistically significant intercept differences for White, Black and Hispanic sophomores, which were the ethnic groups defined in the prediction equations. The R^2 change for the Model 11 and Model 12 comparison was approximately .013 ($p \leq .001$), with Model 11 being the best prediction equation for this sample. Thus, using the Business composite as the predictor variable White and Hispanic sophomores would be consistently

underpredicted in their English grades if the common regression line were used, while Black sophomores would be consistently overpredicted if a common regression line were used.

Juniors 1984-85. When the model comparisons were made for gender group differences, using the Business composite resulted in statistically significant slope differences between the male and female regression lines. The R^2 change for the Model 7 and Model 8 comparison was approximately .006 ($p \leq .001$), with Model 7 being the best prediction equation for this group's English grade. Thus, the change in the English grade per unit change in the ASVAB Business composite was significantly different for these junior males and females.

Using the Business composite score as the aptitude measure resulted in no statistically significant slope or intercept differences for White, Black and Hispanic sophomores, which were the ethnic groups defined in the prediction equations. Again, Model 12, which contained the unit vector and the ASVAB Business composite, could be used in the prediction of English course grades obtained by juniors for this year.

Juniors 1985-86. As in the 1984-85 school year, using the Business composite in the equations resulted in statistically significant slope differences between the male and female regression lines. The R^2 change for the Model 7 and Model 8 comparison was approximately .008 ($p \leq .001$), with Model 7 being the best prediction equation for this group's English grade. Thus, the change in the English grade per unit change in the ASVAB Business composite was significantly different for these junior males and females.

Using the Business composite score resulted in no statistically significant slope or intercept differences for the ethnic groups, with this sample including only White and Black individuals. Thus, Model 12, which contained only the unit vector and the Business composite score in the prediction equation, could be used in the prediction of English course grade for these juniors.

Seniors 1984-85. The ASVAB Business composite as the aptitude predictor showed statistically significant intercept differences in the prediction equations for the two senior gender groups and resulted in an R^2 change of .014 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite senior females would be consistently underpredicted in their English grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the White, Black and Hispanic ethnic group members. Model 12 could be used in the prediction of English course grades obtained by seniors during this school year.

General Math

Freshmen 1984-85. This sample, using the Business high school composite score as the aptitude predictor variable, showed no statistically significant slope or intercept differences in the prediction equations for the two freshmen gender groups or the White, Black and Hispanic ethnic groups. Models 9 or 12, containing only the unit vector and the Business composite score in the prediction equation, could be used in the prediction of General Math course grade for these freshmen.

Freshmen 1985-86. For this sample, the results also showed no statistically significant slope or intercept differences for the gender group members or the White and Black ethnic group members. Again, Models 9 or 12 could be used in the prediction of General Math course grade for these freshmen.

Sophomores 1984-85. This sample also resulted in no statistically significant slope or intercept differences for the gender group members or the White, Black and Hispanic ethnic group members. Models 9 or 12, which contained only the unit vector and the Business composite score in the prediction equation, could be used in the prediction of General Math course grades obtained during this year by sophomores.

Sophomores 1985-86. This sample, using the Business composite in the equations, showed no statistically significant slope or intercept differences between gender subgroups or the White and Black ethnic group members. Thus, Model 9 or 12, containing the unit vector and the Business composite score, could be used in predicting General Math course grade for these individuals.

Juniors 1984-85. As in the previous samples, using the Business high school composite score as the aptitude predictor variable, showed no statistically significant slope or intercept differences between the gender or White and Black subgroups. Again, Models 9 or 12 could be used in the prediction of General Math course grades obtained in 1984-85 by juniors.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. Using the Business high school composite score as the aptitude predictor variable, the results showed no statistically significant slope or intercept differences between the gender or ethnic subgroups. Thus, Model

9 or 12, containing the unit vector and the Business composite score, could be used in predicting General Math course grade for these individuals.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. The results showed no statistically significant slope or intercept differences for the gender group members. Again, Model 9 could be used in the prediction of General Math course grades obtained in 1984-85 by seniors.

The ASVAB Business composite as the aptitude predictor showed statistically significant intercept differences in the prediction equations for the two senior ethnic groups and resulted in an R^2 change of .042 ($p \leq .01$) for the Model 11 vs Model 12 comparison. Therefore, Model 11 would be the best prediction equation for this sample. Using this composite White seniors would be consistently underpredicted in their General Math grades if the common regression line were used, while Black seniors would be consistently overpredicted if a common regression line were used.

Algebra

Freshmen 1984-85. Using the ASVAB Business composite as the predictor variable, the results showed statistically significant intercept differences in the prediction equations for the two gender groups and resulted in an R^2 change of .015 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite freshmen females would be consistently underpredicted in their Algebra grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

Using the Business composite, the results showed no statistically significant slope or intercept differences for the ethnic group members, which in this sample were defined as White and Nonwhite. Thus, Model 12, which contained only the unit vector and the Business composite score in the prediction equation, could be used in the prediction of Algebra course grade for freshmen during this school year.

Freshmen 1985-86. With the Business composite as the aptitude measure the results showed statistically significant intercept differences in the prediction equations for the two gender and ethnic groups. These comparisons resulted in R^2 changes of .015 and .014 ($p \leq .001$) for the Model 8 vs Model 9 and Model 11 vs Model 12 tests. Therefore, Models 8 and 11 would be the best prediction equations for this sample. Using this composite, freshmen females would be consistently underpredicted in their

Algebra grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used. Conversely, White freshmen would be consistently underpredicted in their Algebra course grades if the common regression line were used, while Nonwhite freshmen would be consistently overpredicted if a common regression line were used.

Sophomores 1984-85. In this 1984-85 sample, using the Business high school composite score as the aptitude predictor variable, the results showed no statistically significant slope or intercept differences for the gender or ethnic group members, which in this sample were defined as White and Nonwhite. Again, Model 9 or 12 could be used in the prediction of Algebra course grade for sophomores during this school year.

Sophomores 1985-86. In this sample, using the Business high school composite, the results showed no statistically significant slope or intercept differences for the gender subgroups or the White and Nonwhite ethnic group members. Thus, Model 9 or 12, which contained only the unit vector and the Business composite score in the prediction equation, could be used in the prediction of Algebra course grades obtained in 1985-86 by sophomores.

Juniors 1984-85. In this 1984-85 sample, using the Business high school composite score as the aptitude predictor variable, the results showed no statistically significant slope or intercept differences for the gender or ethnic group members, which in this sample were defined as White and Black. Again, Model 9 or 12 could be used in the prediction of Algebra course grade for juniors during this school year.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Using the ASVAB Business composite as the predictor variable, the results showed no statistically significant slope or intercept differences for the gender or ethnic groups. Model 9 or 12 could be used in the prediction of Algebra course grade for these juniors.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Again, using the Business composite in the equations resulted in no statistically significant slope or intercept differences for the gender or ethnic group members, which in this sample were defined as White and Nonwhite. Thus, Model 9 or 12 could be used in the prediction of Algebra course grades obtained by seniors in the 1984-85 school year.

Geometry

Freshmen 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. These tests resulted in no statistically significant slope or intercept differences for the gender subgroups or the three ethnic groups. Thus, Model 9 or 12, containing the unit vector and the Business high school composite score, could be used in the prediction of Geometry course grades obtained by freshmen in the 1985-86 school year.

Sophomores 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. Using the Business composite in the equations also resulted in no statistically significant slope of intercept differences for the gender group or three ethnic groups. Again, Model 9 or 12 could be used in the prediction of Geometry course grade for these sophomores.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. With the Business composite as the aptitude measure, the results showed no statistically significant slope or intercept differences for the gender group members. Using this composite, Model 9 could be used in the prediction of Geometry course grades obtained by sophomores during this school year.

When the model comparisons were made for ethnic group differences, using the Business composite within the equations, the results showed statistically significant slope differences between the White and Black regression lines. The R^2 change for the Model 10 and Model 11 comparison was approximately .035 ($p \leq .01$), with Model 10 being the best prediction equation for this sample's Geometry grade. Thus, the change in the Geometry grade per unit change in the ASVAB Business composite was significantly different for these White and Black sophomores.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. With the Business composite as the aptitude measure, the results showed no

statistically significant slope of intercept differences for the gender or ethnic group members. Model 9 or 12 could be used in the prediction of Geometry course grade for these juniors.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. With the Business composite as the aptitude measure, the results showed no statistically significant slope or intercept differences for the gender group members. Thus, Model 9 could be used in the prediction of Geometry course grades obtained by juniors during the 1985-86 school year.

When the model comparisons were made for ethnic group differences using the Business composite, the results showed statistically significant slope differences for the gender group members. With an R^2 change of .063 ($p \leq .01$) for the Model 10 vs Model 11 comparison, Model 10 would be the best prediction equation for Geometry course grade for these juniors. The change in the Geometry grade per unit change in the ASVAB Business composite was significantly different for these White and Nonwhite juniors.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. In this sample, the Business composite equations resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. Model 9 or 12 could be used in the prediction of Geometry course grade for these seniors.

Calculus

Juniors 1985-86. This was the only Calculus sample which possessed more than 50 cases, and only gender group differences were tested. The Business composite, as the predictor variable, resulted in no statistically significant slope or intercept differences for the gender group members. Model 9 could be used in the prediction of Calculus course grade for these individuals.

General Science

Freshmen 1984-85. Using the Business high school composite with this sample, the results showed statistically significant differences between the Model 2 vs Model 4 comparison. However, the Model 2 vs Model 5 comparsion showed that these two models were not significantly different. Model 5 included the unit vector, the Business score by ethnicity two-way interaction

predictor variables, and the sex by ethnicity two-way interaction predictor variables. With Model 5 as the best prediction equation for this sample's General Science grade, no differential validiy for the gender by Busniess score two-way interaction predictor variables was evidenced.

Freshmen 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. Using the Business composite as the aptitude predictor variable resulted in no statistically significant slope or intercept differences for the gender group members. Model 9, which contained the unit vector and the Business composite score, could be used in the prediction of General Science course grades obtained by freshmen in 1985-86.

When the model comparisons were made for ethnic group differences using the Business composite, the results showed statistically significant slope differences for the gender group members. With an R^2 change of .036 ($p \leq .01$) for the Model 10 vs Model 11 comparison, Model 10 would be the best prediction equation for General Science course grade for these freshmen. The change in the General Science grade per unit change in the ASVAB Business composite was significantly different for these White and Black freshmen.

Sophomores 1984-85. In this 1984-85 sample, using the Business composite score as the aptitude predictor variable, the results also showed no statistically significant slope or intercept differences for the gender group members or the ethnic group members, which in this sample were White and Nonwhite. Again, Models 9 or 12 could be used in the prediction of General Science course grades obtained by sophomores.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. Using the Business composite as the aptitude predictor variable resulted in no statistically significant slope or intercept differences for the gender group members. Model 9, which contained the unit vector and the Business composite score, could be used in the prediction of General Science course grades obtained by sophomores in 1985-86.

When the model comparisons were made for ethnic group differences, using the Business composite, the results showed statistically significant intercept differences between the White and Black regression lines. The R^2 change for the Model 11 and Model 12 comparison was approximately .055 ($p \leq .01$), with Model 11 being the best prediction equation for this sample's General Science grade. Thus, using this composite, White sophomores

would be consistently underpredicted in their General Science grados if the common regression line were used, while Black sophomores would be consistently overpredicted if a common regression line were used.

<u>Juniors 1984-85</u>. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. Using the Business composite within the prediction equation resulted in no statistically significant slope or intercept differences between the male and female regression lines. Again, Model 9 could be used in the prediction of General Science course grades obtained by juniors in this school year.

When the model comparisons were made for ethnic group differences, using the Business composite, the results showed statistically significant intercept differences between the White and Black regression lines. The R^2 change for the Model 11 and Model 12 comparison was approximately .082 ($p \leq .01$), with Model 11 being the best prediction equation for this sample's General Science grade. Thus, using this composite, White sophomores would be consistently underpredicted in their General Science grades if the common regression line were used, while Black sophomores would be consistently overpredicted if a common regression line were used.

<u>Juniors 1985-86</u>. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Again, using the Business composite within the prediction equation resulted no in statistically significant intercept differences between the male and female regression lines. Thus, Model 9 could be used in the prediction of General Science course grades obtained by juniors in the 1985-86 school year.

This Business composite prediction equation resulted in statistically significant slope differences for the ethnic group members. The R^2 change for the Model 10 and Model 11 comparison was approximately .025 ($p \leq .01$), with Model 10 being the best prediction equation. The change in the General Science grade per unit change in the ASVAB Business composite was significantly different for these White and Nonwhite juniors.

<u>Seniors 1984-85</u>. This sample tested only for gender group differences. Using the Business composite within the prediction equation resulted in no statistically significant slope or intercept differences between the male and female regression lines. Thus, Model 9 could be used in the prediction of General Science course grades obtained by seniors in the 1984-85 school year.

Biology I - II

Freshmen 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Using the Business composite within the prediction equation resulted in no statistically significant slope or intercept differences between the gender or ethnic regression lines. Again, Model 9 or 12 could be used in the prediction of Biology course grades obtained by freshmen in 1984-85.

Freshmen 1985-86. The use of this composite resulted in statistically significant intercept differences in the prediction equations for the two freshmen gender groups, with an R^2 change of .009 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the Business composite as the predictor variable, freshmen females would be consistently underpredicted in their Biology grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score, the results showed no statistically significant slope or intercept differences for White and Black freshmen, which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the Business composite score in the prediction equation, could be used in the prediction of Biology course grade for these freshmen.

Sophomores 1984-85. In this 1984-85 sample, using the Business composite score as the aptitude predictor variable, the results also showed no statistically significant slope or intercept differences for the gender group members or the ethnic group members, which in this sample were White, Black and Hispanic. Again, Models 9 or 12 could be used in the prediction of Biology course grades obtained by sophomores.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. These tests resulted statistically significant intercept differences between the gender group members and an R^2 change of .026 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, sophomore females would be consistently underpredicted in their Biology grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the three ethnic groups. Thus, Model 12, which contained only the unit vector and the Business composite score in the prediction equation, could be used in the prediction of Biology course grade for these sophomores during this school year.

Juniors 1984-85. The use of this composite resulted in no statistically significant slope or intercept differences in the prediction equations for the gender and White and Nonwhite ethnic groups. Thus, Model 9 or 12, which contained only the unit vector and the Business composite score in the prediction equation, could be used in the prediction of Biology course grade for these juniors.

Juniors 1985-86. This sample tested only for gender group differences. Using the Business composite as the predictor variable resulted in statistically significant slope differences for the gender groups. With an R^2 change of .029 ($p \leq .01$) for the Model 7 vs Model 8 comparison, Model 7 would be the best prediction equation of Biology course grade for these juniors. The change in the Biology grade per unit change in the ASVAB Business composite was significantly different for these male and female juniors.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. Using the Business composite in the equations, the results showed no statistically significant slope or intercept differences for the gender groups. Thus, Model 9, which contained only the unit vector and the Business composite score in the prediction equation, could be used in the prediction of Biology course grade for these seniors.

The use of this Business composite in the equations resulted in statistically significant intercept differences for the two ethnic group members. With an R^2 change of .061 ($p \leq .01$) for the Model 11 vs Model 12 comparisons, Model 11 would be the best prediction equations for these seniors. Using this composite, White seniors would be consistently underpredicted in their Biology grades if the common regression line were used, while Black seniors would be consistently overpredicted if a common regression line were used.

Chemistry I - II

Freshmen 1985-86. This sample tested only for gender group differences. Using the Business composite in the equations, the results showed no statistically significant slope or intercept differences for the gender groups. Thus, Model 9, which

contained only the unit vector and the Business composite score in the prediction equation, could be used in the prediction of Chemistry course grade for these freshmen.

Sophomores 1984-85. This sample also tested only for gender group differences. Again, with the Business composite in the equations, the results showed no statistically significant slope or intercept differences for the gender groups. Thus, Model 9, which contained only the unit vector and the Business composite score in the prediction equation, could be used in the prediction of Chemistry course grade for these sophomores.

Sophomores 1985-86. This sample tested only for gender group differences. Using the Business composite as the predictor variable, the results indicated statistically significant intercept differences for the gender groups. With an R^2 change of .019 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction system of Chemistry course grade for these sophomores. Using this composite, sophomore females would be consistently underpredicted in their Chemistry grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The use of this Business composite in the equations resulted in statistically significant intercept differences for the gender group members. With R^2 change of .022 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction equation for these juniors. Using this composite, junior females would be consistently underpredicted in their Chemistry grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score, the results showed statistically significant slope differences for White and Nonwhite juniors. With an R^2 change of .027 ($p \leq .01$) for the Model 10 vs Model 11 comparison, Model 10 would be the best prediction equation of Chemistry course grade for these juniors. The change in the Chemistry grade per unit change in the ASVAB Business composite was significantly different for these White and Nonwhite juniors.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The use of this composite resulted in no statistically significant slope or intercept differences for the gender groups or the White and Nonwhite ethnic groups. Thus, Model 9 or 12, which contained

only the unit vector and the Business composite score in the prediction equation, could be used in the prediction of Chemistry course grade for these juniors.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Using the Business composite, the results showed no statistically significant slope or intercept differences for the gender or White and Nonwhite ethnic group members. Model 9 or 12 could be used in the prediction of Chemistry course grades obtained by seniors during this school year.

Physics I - II

Juniors 1985-86. This sample tested only for gender group differences. The use of this composite resulted in no statistically significant slope or intercept differences in the prediction equations for the gender groups. Model 9 could be used in the prediction of Physics course grades for these juniors.

Seniors 1984-85. This sample tested only for gender group differences. The Business composite equations again resulted in no statistically significant intercept differences for the gender groups. Model 9, containing the unit vector and the Business high school composite score, could be used in the prediction of Physics course grade for these individuals.

Government and Civics

Freshmen 1984-85. This sample tested only for gender group differences. The Business composite equations again resulted in no statistically significant intercept differences for the gender groups. Model 9, containing the unit vector and the Business high school composite score, could be used in the prediction of Government course grade for these individuals.

Sophomore 1984-85. This sample also tested only for gender group differences. The Business composite equations again resulted in no statistically significant intercept differences for the gender groups. Model 9, containing the unit vector and the Business high school composite score, could be used in the prediction of Government course grade for these individuals.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The Business composite equations again resulted in no statistically

significant intercept differences for the gender groups. Model 9, containing the unit vector and the Business high school composite score, could be used in the prediction of Government course grade for these individuals.

The use of this Business composite in the equations resulted in statistically significant intercept differences for the two ethnic group members. With R^2 change of .019 ($p \leq .01$) for the Model 11 vs Model 12 comparisons, Model 11 would be the best prediction equations for these sophomores. Using this composite, White sophomores would be consistently underpredicted in their Government grades if the common regression line were used, while Hispanic sophomores would be consistently overpredicted if a common regression line were used.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. As in previous samples, the Business composite equations resulted in no statistically significant intercept differences for the gender groups. Model 9, containing the unit vector and the Business high school composite score, could be used in the prediction of Government course grade for these individuals.

The use of this Business composite in the equations again resulted in statistically significant intercept differences for the ethnic subgroups. With an R^2 change of .011 ($p \leq .01$) for the Model 11 vs 12 comparison, Model 11 would be the best prediction equations for these juniors. Using this composite, White juniors would be consistently underpredicted in their Government grades if the common regression line were used, while Nonwhite juniors would be consistently overpredicted if a common regression line were used.

Juniors 1985-86. Using this ASVAB composite score, the results showed no statistically significant slope or intercept differences for gender groups or the White and Black ethnic groups. Thus, Model 9 or 12, which contained only the unit vector and the Business composite score in the prediction equation, could be used in the prediction of Government course grade for these juniors.

Seniors 1984-85. Similar to some of the previous samples, using the Business composite score as the aptitude predictor variable, resulted in no statistically significant intercept differences for the gender or White and Black ethnic group members. Again, Models 9 or 12, which contained only the unit vector and the Business composite score in the prediction equation, could be used in the prediction of Government course grades for these seniors.

History

Freshmen 1984-85. The use of the ASVAB Business composite as the aptitude predictor variable showed statistically significant intercept differences in the prediction equations for the two freshmen gender groups and resulted in an R^2 change of .008 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, freshmen females would be consistently underpredicted in their History grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

The use of this ASVAB composite in the equations resulted in statistically significant slope differences for the White, Black and Hispanic ethnic group members. With an R^2 change of .012 ($p \leq .001$) for the Model 10 vs Model 11 comparison, Model 10 would be the best prediction equation of History course grade for these freshmen. The change in the History grade per unit change in the ASVAB Business composite was significantly different for these White, Black and Hispanic freshmen.

Freshmen 1985-86. This sample, using the Business high school composite score as the aptitude predictor variable, resulted in no statistically significant slope or intercept differences for the gender group members or the White and Black ethnic group members. Thus, Models 9 or 12, which contained only the unit vector and the Business composite score in the prediction equation, could be used in the prediction of History course grade for these freshmen.

Sophomores 1984-85. Using the Business high school composite score as the aptitude predictor variable, the results showed no statistically significant slope or intercept differences for the gender group members or the White and Black ethnic group members. Thus, Models 9 or 12, which contained only the unit vector and the Business composite score in the prediction equation, could be used in the prediction of History course grade for these sophomores.

Sophomores 1985-86. The use of the ASVAB Business composite as the aptitude predictor variable showed statistically significant intercept differences in the prediction equations for the two freshmen gender groups and resulted in an R^2 change of .015 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, sophomore females would be consistently underpredicted in their History grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

The use of this ASVAB composite in the equations resulted in statistically significant slope differences for the White, Black and Hispanic ethnic group members. With an R^2 change of .017 ($p \leq .001$) for the Model 10 vs Model 11 comparison, Model 10 would be the best prediction equation of History course grade for these sophomores. The change in the History grade per unit change in the ASVAB Business composite was significantly different for these White, Black and Hispanic sophomores.

Juniors 1984-85. The use of this ASVAB composite in the equations resulted in statistically significant intercept differences for gender and the White and Black ethnic group members. R^2 changes of .007 ($p \leq .001$) for the Model 8 vs Model 9 and Model 11 vs Model 12 comparisons were evidenced. Therefore, Models 8 and 11 would be the best prediction equations for this sample. Using this composite as the predictor variable, junior females would be consistently underpredicted in their History grades if the common regression line were used, while junior males would be consistently overpredicted if the common regression line were used. Conversely, White juniors would be consistently underpredicted in their History grades if the common regression line were used, while Black juniors would be consistently overpredicted if a common regression line were used.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. Using the Business high school composite score as the aptitude predictor variable, the results showed statistically significant slope differences in the prediction equations for the two junior gender groups and resulted in an R^2 change of .013 ($p \leq .01$) for the Model 7 vs Model 8 comparison. Therefore, Model 7 would be the best prediction equation for this sample. The change in the History grade per unit change in the Business high school composite was significantly different for junior males and females.

The use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Black ethnic group members. Thus, Model 12, which contained only the unit vector and the Business composite score in the prediction equation, could be used in the prediction of History course grades obtained by juniors during this school year.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. The use of the Business composite in the prediction equations resulted in no statistically significant slope or intercept differences for the gender group members. Thus, Model 9, which contained only the

unit vector and the Business composite score in the prediction equation, could be used in the prediction of History course grade for these seniors.

Statistically significant intercept differences resulted between the White and Black ethnic subgroups. With an R^2 change of .026 ($p \leq .01$) for the Model 11 vs Model 12 comparison, Model 11 would be the best prediction system. Thus, if a common regression line using the Business composite as the aptitude measure were used in the prediction of History course grade, White seniors would be consistently underpredicted on this criterion while Black seniors would be consistently overpredicted.

Foreign Language

Freshmen 1984-85. After collapsing across ethnic groups and then collapsing across gender groups, the use of the ASVAB Business composite as the aptitude predictor variable showed statistically significant intercept differences in the prediction equations for the two freshmen gender groups. The results showed an R^2 change of .024 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the aptitude predictor variable, freshmen females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

The use of this ASVAB composite in the equations resulted in statistically significant slope differences for the White, Black and Hispanic ethnic group members. With an R^2 change of .010 ($p \leq .01$) for the Model 10 vs Model 11 comparison, Model 10 would be the best prediction equation of Foreign Language course grade for these freshmen. The change in the Foreign Language grade per unit change in the ASVAB Business composite was significantly different for these White, Black and Hispanic freshmen.

Freshmen 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. When the model comparisons were made for gender group differences, using the Business composite within the equations, the results showed statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .024 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Foreign Language grade. Thus, freshmen females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

When the model comparisons were made for ethnic group differences, using the Business composite within the equations, the results showed no statistically significant slope or intercept differences between the White, Black and Hispanic regression lines. Model 12, which contained only the unit vector and the Business composite score in the prediction equation, could be used in the prediction of Foreign Language course grades obtained by freshmen during this school year.

Sophomores 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. When the model comparisons were made for gender group differences, using the Math composite within the equations, the results again showed statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .047 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Foreign Language grade. Thus, sophomore females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

When the model comparisons were made for ethnic group differences using of this Business composite in the prediction equations, the results also showed statistically significant intercept differences between the White, Black and Hispanic regression lines. Again, the Business prediction equations showed statistically significant intercept differences between the White, Black and Hispanic regression lines. The R^2 change for the Model 11 and Model 12 comparison was approximately .010 ($p \leq .01$), with Model 11 being the best prediction equation for this sample's Foreign Language grade. White and Hispanic sophomores would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while Black sophomores would be consistently overpredicted if a common regression line were used.

Sophomores 1985-86. Using the ASVAB Business composite as the aptitude predictor in the equations showed statistically significant intercept differences in the prediction equations for the two sophomore gender groups and resulted in an R^2 change of .032 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite sophomore females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

The use of this ASVAB composite score in the prediction equations resulted in no statistically significant slope or intercept differences for the White and Nonwhite ethnic group members. Thus, Model 12, which contained only the unit vector and the Business composite score in the prediction equation, could be used in the prediction of Foreign Language course grades obtained by sophomores during this school year.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The use of the Business composite as a predictor measure showed statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .057 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Foreign Language grade. Thus, using this predictor composite, junior females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

When the model comparisons were made for ethnic group differences, the Business predictor composite resulted in no statistically significant slope or intercept differences for the ethnic group members. Model 12 could be used in the prediction of Foreign Language course grades obtained by juniors during this school year.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The Business prediction equations resulted in no statistically significant slope or intercept differences for the gender or White and Hispanic ethnic group members. Thus, Model 9 or 12, which contained only the unit vector and the Business composite score in the prediction equation, could be used in the prediction of Foreign Language course grades obtained by juniors during this school year.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Hispanic ethnic group differences were studied by not including the gender variables in the equations. Again, the Business composite prediction equations resulted in no statistically significant slope or intercept differences for the gender or two ethnic groups. Model 9 or 12 could be used in the prediction of Foreign Language course grade for these individuals.

Secretary and Office Education

Juniors 1985-86. This sample tested only for White and Nonwhite ethnic group differences. Using the Business composite as the aptitude predictor variable, the results showed no statistically significant slope or intercept differences for the ethnic groups. Thus, Model 12, which contained the unit vector and the ASVAB Business composite, could be used in the prediction of this course grade for these juniors.

Seniors 1984-85. This sample tested only for White and Nonwhite ethnic group differences. Again, using the Business composite prediction equations the results showed no statistically significant slope or intercept differences for the ethnic groups. Thus, Model 12, which contained the unit vector and the ASVAB Business composite, could be used in the prediction of Secretary and Office course grades obtained by these seniors.

Typing and Word Processing

Freshmen 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The Business prediction equations resulted in no statistically significant slope or intercept differences for the gender or White, Black and Hispanic ethnic group members. Thus, Model 9 or 12, which contained only the unit vector and the Business composite score in the prediction equation, could be used in the prediction of Typing course grades obtained by freshmen during this school year.

Freshmen 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Hispanic ethnic group differences were studied by not including the gender variables in the equations. Again, the Business prediction equations resulted in no statistically significant slope or intercept differences for the gender or White and Hispanic ethnic group members. Thus, Model 9 or 12, which contained only the unit vector and the Business composite score in the prediction equation, could be used in the prediction of Typing course grades obtained by freshmen during this school year.

Sophomores 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The

results again showed statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .011 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Typing grade. Thus, using this predictor composite, sophomore females would be consistently underpredicted in their Typing grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Again, when testing for ethnic group differences, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White, Black and Hispanic ethnic group members. Thus, Model 12, which contained only the unit vector and the Business composite score in the prediction equation, could be used in the prediction of Typing course grades obtained by sophomores during this school year.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. The Business prediction equations showed no statistically significant slope or intercept differences for the gender or ethnic group members. Again, Model 9 or 12 could be used in the prediction of Typing course grade for these sophomores.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. As in the sophomore 1984-85 sample, the results showed statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .032 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Typing grade. Thus, using this predictor composite, junior females would be consistently underpredicted in their Typing grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Again, when testing for ethnic group differences, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Black ethnic group members. Thus, Model 12, which contained only the unit vector and the Business composite score in the prediction equation, could be used in the prediction of Typing course grades obtained by juniors during this school year.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including

ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. As in the previous samples, the results showed no statistically significant slope or intercept differences for the gender or White and Nonwhite ethnic group members. Thus, Model 9 or 12, which contained only the unit vector and the Business composite score in the prediction equation, could be used in the prediction of Typing course grades obtained by juniors during this school year.

Seniors 1984-85. This sample tested only for gender group differences. The Business composite equations resulted in no statistically significant slope or intercept differences between the gender regression lines. Model 9, which contained only the unit vector and the Business composite score in the prediction equation, could be used in the prediction of Typing course grades obtained by seniors during this school year.

Accounting and Bookkeeping

Sophomores 1985-86. This sample tested only for gender group differences. The use of the ASVAB Business composite as the predictor variable showed statistically significant intercept differences in the prediction equations for the two sophomore gender groups and resulted in an R^2 change of .019 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, sophomore females would be consistently underpredicted in their Accounting grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Juniors 1984-85. This sample tested for gender group differences. Again, using the Business composite prediction equations, the results showed statistically significant intercept differences in the prediction equations for the two junior gender groups and resulted in an R^2 change of .035 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, junior females would be consistently underpredicted in their Accounting grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Juniors 1985-86. This sample tested only for gender group differences. Using the Business composite prediction equations, the results showed no statistically significant slope or intercept differences in the prediction equations for the two junior gender groups. Thus, Model 9 could be used in the prediction of Accounting grades obtained by juniors during this school year.

Seniors 1984-85. Like the junior samples, this sample tested for gender group differences. Using the Business composite prediction equations, the results showed statistically significant intercept differences in the prediction equations for the two gender groups and resulted in an R^2 change of .023 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, senior females would be consistently underpredicted in their Accounting grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

Home Economics

Freshmen 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. The prediction equations with the ASVAB Business composite showed statistically significant intercept differences in the prediction equations for the two freshmen gender groups and resulted in an R^2 change of .022 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, freshmen females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB Business composite, the results showed statistically significant intercept differences in the prediction equations for the two ethnic groups. An R^2 change of .062 ($p \leq .01$) for the Model 11 vs Model 12 comparison was evidenced; and Model 11 could be used in the prediction of Home Economics course grade for these freshmen. Using this predictor composite, freshmen Whites would be consistently underpredicted in their Home Economics grades if the common regression line were used, while freshmen Blacks would be consistently overpredicted if a common regression line were used.

Freshmen 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Using the Business composite as a predictor variable, the results showed statistically significant intercept differences for these two freshmen gender groups and resulted in an R^2 change of .040 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the aptitude measure, freshmen females would be

consistently underpredicted in their Home Economics grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB Business composite, the results showed no statistically significant slope or intercept differences in the prediction equations for the two ethnic groups. Model 12 could be used in the prediction of Home Economics course grade for these freshmen.

Sophomore 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The prediction equations with the ASVAB Business composite showed statistically significant intercept differences in the prediction equations for the two gender groups and resulted in an R^2 change of .035 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, sophomore females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB Business composite, the results showed statistically significant intercept differences in the prediction equations for the two ethnic groups. An R^2 change of .031 ($p \leq .01$) for the Model 11 vs Model 12 comparison was evidenced; and Model 11 could be used in the prediction of Home Economics course grade for these sophomores. Using this predictor composite, White sophomores would be consistently underpredicted in their Home Economics grades if the common regression line were used, while Nonwhite sophomores would be consistently overpredicted if a common regression line were used.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The use of the Business composite prediction equations resulted in statistically significant intercept differences for the gender group members and resulted in an R^2 change of .030 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, sophomore females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB Business composite, the results showed no statistically significant slope or intercept differences in the prediction equations for the two ethnic groups. Model 12 could be used in the prediction of Home Economics course grade for these sophomores.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The use of the Business composite prediction equations resulted in no statistically significant slope or intercept differences in the prediction equations for the gender or ethnic groups. Model 9 or 12 could be used in the prediction of Home Economics course grade for these juniors.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Again, this sample, using the Business composite equations, resulted in statistically significant intercept differences for the gender group members. An R^2 change of .077 ($p \leq .01$) for the Model 8 vs Model 9 comparison was evidenced; therefore, Model 8 would be the best prediction equation for this sample. Using this predictor composite junior females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB Business composite, the results indicated no statistically significant slope or intercept differences in the prediction equations for the two ethnic groups. Model 12 could be used in the prediction of Home Economics course grade for these juniors.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. As in the junior 1985-86 sample, the Business composite equations resulted in statistically significant intercept differences for the gender group members. An R^2 change of .030 ($p \leq .01$) was obtained for the Model 8 vs Model 9 comparison; therefore, Model 8 would be the best prediction equation for this sample. Using this composite senior females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

The tests for ethnic group differences were conducted using the ASVAB Business composite, and the results showed no statistically significant slope or intercept differences in the prediction equations for the two ethnic groups. Model 12 could be used in the prediction of Home Economics course grade for these seniors.

Computer Programming

Sophomores 1985-86. This sample tested only for gender group differences. Using the Business composite as a predictor variable, the results showed statistically significant intercept differences for the gender group members. An R^2 change of .034 ($p \leq .01$) was obtained for the Model 8 vs Model 9 comparison; therefore, Model 8 would be the best prediction equation for this sample. Using this composite sophomore females would be consistently underpredicted in their Computer Programming grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Juniors 1984-85. Like the sophomore sample, this sample tested for gender group differences. However, using the Business composite as a predictor variable, the results showed no statistically significant slope or intercept differences for the gender group members. Thus, Model 9, which contained the unit vector and the Business composite score, could be used in the prediction of Computer Programming grades for these individuals.

Juniors 1985-86. Collapsing across the ethnic groups, the model comparisons tested for gender group differences. Using the Business high school predictor composite, the results showed statistically significant intercept differences in the prediction equations for the two junior gender groups and resulted in an R^2 change of .049 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite junior females would be consistently underpredicted in their Computer Programming grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Seniors 1984-85. As in the previous Computer Programming samples, this sample tested for gender group differences. The Business composite prediction equations resulted in no statistically significant slope or intercept differences for the gender groups. Thus, Model 9, which contained the unit vector and the ASVAB Business composite, could be used in the prediction of Computer Programming course grades obtained by seniors for this year.

Table 9. Summary of Equity Findings for Prediction of High School Course Grades by Business & Clerical High School Composite

Course		Sex	Ethnicity	Sex*Ethnicity
English I-IV				
Fresh	84-85	NS	S	I
Fresh	85-86	I	S	NS
Soph	84-85	S	E	NS
Soph	85-86	I	I	NS
Jr	84-85	S	E	NS
Jr	85-86	S	E	NS
Sr	84-85	I	E	NS
General Math				
Fresh	84-85	E	E	NS
Fresh	85-86	E	E	NS
Soph	84-85	E	E	NS
Soph	85-86	E	E	NS
Jr	84-85	E	E	NS
Jr	85-86	E	E	NS
Sr	84-85	E	I	NS
Algebra				
Fresh	84-85	I	E	NS
Fresh	85-86	I	I	NS
Soph	84-85	E	E	NS
Soph	85-86	E	E	NS
Jr	84-85	E	E	NS
Jr	85-86	E	E	NS
Sr	84-85	E	E	NS
Geometry				
Fresh	85-86	E	E	NS
Soph	84-85	E	E	NS
Soph	85-86	E	S	NS
Jr	84-85	E	E	NS
Jr	85-86	E	S	NS
Sr	84-85	E	E	NS
Calculus				
Jr	85-86	E	NT	NS
General Science				
Fresh	84-85	NS	S	I
Fresh	85-86	E	S	NS
Soph	84-85	E	E	NS
Soph	85-86	E	I	NS
Jr	84-85	E	I	NS
Jr	85-86	E	S	NS
Sr	84-85	E	NT	NS
Biology				
Fresh	84-85	E	E	NS
Fresh	85-86	I	E	NS
Soph	84-85	E	E	NS
Soph	85-86	I	E	NS
Jr	84-85	E	E	NS
Jr	85-86	S	NT	NS
Sr	84-85	E	I	NS

Note. NS = Not significant; I = Intercept differences; S = Slope differences; E = Equitable test, no significant slope or intercept differences found; NT = Not tested due to small sample sizes.

Table 9. (Continued)

Course		Sex	Ethnicity	Sex*Ethnicity
Chemistry				
Fresh	85-86	E	NT	NS
Soph	84-85	E	NT	NS
Soph	85-86	I	NT	NS
Jr	84-85	I	S	NS
Jr	85-86	E	E	NS
Sr	84-85	E	E	NS
Physics				
Jr	85-86	E	NT	NS
Sr	84-85	E	NT	NS
Government				
Fresh	84-85	E	NT	NS
Soph	84-85	E	NT	NS
Soph	85-86	E	I	NS
Jr	84-85	E	I	NS
Jr	85-86	E	E	NS
Sr	84-85	E	E	NS
History				
Fresh	84-85	I	S	NS
Fresh	85-86	E	E	NS
Soph	84-85	E	E	NS
Soph	85-86	I	S	NS
Jr	84-85	I	I	NS
Jr	85-86	S	E	NS
Sr	84-85	E	I	NS
Foreign Language				
Fresh	84-85	I	S	NS
Fresh	85-86	I	E	NS
Soph	84-85	I	I	NS
Soph	85-86	I	E	NS
Jr	84-85	I	E	NS
Jr	85-86	E	E	NS
Sr	84-85	E	E	NS
Secretary & Ofc				
Jr	85-86	NT	E	NS
Sr	84-85	NT	E	NS
Typing				
Fresh	84-85	E	E	NS
Fresh	85-86	E	E	NS
Soph	84-85	I	E	NS
Soph	85-86	E	E	NS
Jr	84-85	I	E	NS
Jr	85-86	E	E	NS
Sr	84-85	E	NT	NS

Note. NS = Not significant; I = Intercept differences; S = Slope differences; E = Equitable test, no significant slope or intercept differences found; NT = Not tested due to small sample sizes.

Table 9. (Concluded)

Course		Sex	Ethnicity	Sex*Ethnicity
Accounting				
Soph	85-86	I	NT	NS
Jr	84-85	I	NT	NS
Jr	85-86	E	NT	NS
Sr	84-85	I	NT	NS
Home Economics				
Fresh	84-85	I	I	NS
Fresh	85-86	I	E	NS
Soph	84-85	I	I	NS
Soph	85-86	I	E	NS
Jr	84-85	E	E	NS
Jr	85-86	I	E	NS
Sr	84-85	I	E	NS
Computer Program				
Soph	85-86	I	NT	NS
Jr	84-85	E	NT	NS
Jr	85-86	I	NT	NS
Sr	84-85	E	NT	NS

Note. NS = Not significant; I = Intercept differences; S = Slope differences; E = Equitable test, no significant slope or intercept differences found; NT = Not tested due to small sample sizes.

Electronics and Electrical High School Composite

English I - IV

Freshmen 1984-85. Using the Electronics high school composite with this sample, the results showed no statistically significant differences between the Model 2 vs Model 4 comparison. Model 4 included the unit vector, the Electronics composite score, and the sex by ethnicity two-way interaction predictor variables, with ethnicity membership being defined as White, Black and Hispanic. With Model 4 as the best prediction equation for this sample's English grade, no differential validity was evidenced for the ethnicity by Electronics score two-way interaction variables or the sex by Electronics score two-way interaction variables.

Freshmen 1985-86. This composite showed statistically significant intercept differences in the prediction equations for the two freshmen gender groups and resulted in an R^2 change of .049 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the Electronics composite as the predictor variable freshmen females would be consistently underpredicted in their English grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

When the model comparisons were made for ethnic group differences, using this ASVAB composite resulted in no statistically significant slope or intercept differences among the White, Black and Hispanic regression lines. Thus, Model 12, which contained the unit vector and the Electronics high school composite score, could be used in the prediction of English grades obtained by freshmen during this school year.

Sophomores 1984-85. When the model comparisons were made for gender group differences, using the Electronics composite resulted in statistically significant slope differences between the male and female regression lines. The R^2 change for the Model 7 and Model 8 comparison was approximately .012 ($p \leq .001$), with Model 7 being the best prediction equation for this group's English grade. Thus, the change in the English grade per unit change in the ASVAB Electronics composite was significantly different for this year's sophomore males and females.

Using this composite score as the aptitude measure resulted in no statistically significant slope or intercept differences for White, Black and Hispanic sophomores which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the Electronics composite score in the prediction equation, could be used in the prediction of English course grade for these sophomores.

Sophomores 1985-86. The model comparisons for gender group differences using the Electronics high school composite showed statistically significant slope differences between the male and female regression lines, with Model 7 as the prediction equation to be used for this sample. The R^2 change for the Model 7 and Model 8 comparison was approximately .009 ($p \leq .001$). Thus, the change in the English grade per unit change in the ASVAB Electronics composite was significantly different for these sophomore males and females.

Statistically significant intercept differences resulted among the White, Black and Hispanic ethnic subgroups. With an R^2 change of .009 ($p \leq .001$) for the Model 11 vs Model 12 comparison, Model 11 would be the best prediction system. Thus, if a common regression line using the Electronics composite were used in the prediction of English course grade, White and Hispanic sophomores would be consistently underpredicted on the criterion while Black sophomores would be consistently overpredicted.

Juniors 1984-85. When the model comparisons were made for gender group differences, using the Electronics high school composite resulted in statistically significant slope differences between the male and female regression lines. The R^2 change for the Model 7 and Model 8 comparison was approximately .011 ($p \leq .001$), with Model 7 being the best prediction equation for this group's English grade. Thus, the change in the English grade per unit change in the ASVAB Electronics composite was significantly different for these junior males and females.

Using this ASVAB composite score as the aptitude predictor variable resulted in no statistically significant slope or intercept differences for White, Black and Hispanic juniors. Thus, Model 12, which contained only the unit vector and the Electronics composite score in the prediction equation, could be used in the prediction of English course grade for these individuals.

Juniors 1985-86. As in the 1984-85 school year, using the Electronics high school composite in the equations showed statistically significant slope differences between the male and female regression lines. The R^2 change for the Model 7 and Model 8 comparison was approximately .009 ($p \leq .001$), with Model 7 being the best prediction equation for English grade. Thus, the change in the English grade per unit change in the ASVAB Electronics composite was also significantly different for these junior males and females.

Again, using this composite score resulted in no statistically significant slope or intercept differences for the ethnic groups, with this sample including only White and Black individuals. Thus, Model 12, which contained only the unit vector and the Electronics composite score in the prediction equation, could be used in the prediction of English course grade for these juniors.

Seniors 1984-85. This sample, using the Electronics high school composite score as the aptitude predictor variable, showed statistically significant intercept differences in the prediction equations for the two senior gender groups and resulted in an R^2 change of .050 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the Electronics composite as the predictor variable senior females would be consistently underpredicted in their English grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

Using this composite in the prediction equations resulted in no statistically significant slope or intercept differences for the gender group members or the White, Black and Hispanic ethnic group members. Model 12, containing only the unit vector and the Electronics composite score in the prediction equation, could be used in the prediction of English course grade for these seniors.

General Math

Freshmen 1984-85. This sample, using the Electronics high school composite score as the aptitude predictor variable, showed statistically significant intercept differences in the prediction equations for the two freshmen gender groups and resulted in an R^2 change of .013 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this

sample. Using the Electronics composite as the predictor variable freshmen females would be consistently underpredicted in their General Math grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

Using this composite in the prediction equations resulted in no statistically significant slope or intercept differences for the gender group members or the White, Black and Hispanic ethnic group members. Model 12, containing only the unit vector and the Electronics composite score in the prediction equation, could be used in the prediction of General Math course grade for these freshmen.

Freshmen 1985-86. For this sample, the results also showed no statistically significant slope or intercept differences for the gender group members or the White and Black ethnic group members. Models 9 or 12, containing only the unit vector and the Electronics composite score in the prediction equation, could be used in the prediction of General Math course grade for these freshmen.

Sophomores 1984-85. This sample also resulted in no statistically significant slope or intercept differences for the gender group members or the White, Black and Hispanic ethnic group members. Models 9 or 12, which contained only the unit vector and the Electronics composite score in the prediction equation, could be used in the prediction of General Math course grades obtained during this year by sophomores.

Sophomores 1985-86. This sample, using the Electronics composite in the equations, showed statistically significant intercept differences between the male and female gender subgroups. With an R^2 change of .045 ($p \leq .001$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction system. Thus, if a common regression line using the Electronics composite were used in the prediction of General Math course grade, female sophomores would be consistently underpredicted on the criterion while male sophomores would be consistently overpredicted.

The results also showed no statistically significant slope or intercept differences between the White and Black ethnic group members regression lines. Thus, Model 12, containing the unit vector and the Electronics composite score, could be used in predicting General Math course grade for these individuals.

Juniors 1984-85. In this 1984-85 sample, using the Electronics high school composite score as the aptitude predictor variable, showed no statistically significant slope or intercept differences for the gender or White and Black ethnic group members. Thus, Models 9 or 12, which contained only the unit vector and the Electronics composite score in the prediction equation, could be used in the prediction of General Math course grades obtained in 1984-85 by juniors.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. Using the Electronics high school composite score as the aptitude predictor variable, showed statistically significant intercept differences between the male and female gender subgroups. With an R^2 change of .041 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction system. Thus, if a common regression line using the Electronics composite were used in the prediction of General Math course grade, female juniors would be consistently underpredicted on the criterion while male juniors would be consistently overpredicted.

Using the Electronics composite as the aptitude predictor variable resulted in no statistically significant slope or intercept differences for the ethnic group members. Thus, Model 12, containing the unit vector and the Electronics composite score, could be used in predicting General Math course grade for these individuals.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. The results showed no statistically significant slope or intercept differences for the gender group or ethnic group members. Again, Model 9 or 12 could be used in the prediction of General Math course grades obtained in 1984-85 by seniors.

Algebra

Freshmen 1984-85. Using the ASVAB Electronics composite as the predictor variable, the results showed statistically significant intercept differences in the prediction equations for the two gender groups with an R^2 change of .041 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, freshmen females would be consistently underpredicted in their Algebra grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the ethnic group members, which in this sample were defined as White and Nonwhite. Thus, Model 12, which contained only the unit vector and the Electronics composite score in the prediction equation, could be used in the prediction of Algebra course grade for freshmen during this school year.

Freshmen 1985-86. With the Electronics composite as the aptitude measure the results showed statistically significant intercept differences in the prediction equations for the two gender groups. These comparisons resulted in R^2 changes of .059 ($p \leq .001$) for the Model 8 vs Model 9 tests. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, freshmen females would be consistently underpredicted in their Algebra grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the ethnic group members, which in this sample were defined as White and Nonwhite. Thus, Model 12, which contained only the unit vector and the Electronics composite score in the prediction equation, could be used in the prediction of Algebra course grade for freshmen during this school year.

Sophomores 1984-85. In this 1984-85 sample, using the Electronics high school composite score as the aptitude predictor variable, the results showed statistically significant intercept differences for the gender group members. These tests resulted in an R^2 change of .036 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, sophomore females would be consistently underpredicted in their Algebra grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the ethnic group members, which in this sample were defined as White and Nonwhite. Thus, Model 12, which contained only the unit vector and the Electronics composite score in the prediction equation, could be used in the prediction of Algebra course grade for sophomores during this school year.

Sophomores 1985-86. In this sample, using the Electronics high school composite, the results also showed statistically significant intercept differences for the gender group members. These tests resulted in an R^2 change of .027 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, sophomore females would be consistently underpredicted in their Algebra grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Using the Electronics composite as the predictor resulted in no statistically significant slope or intercept differences for the White and Black ethnic group members. Thus, Model 12, which

contained only the unit vector and the Electronics composite score in the prediction equation, could be used in the prediction of Algebra course grades obtained in 1985-86 by sophomores.

Juniors 1984-85. In this 1984-85 sample, using the Electronics high school composite score as the aptitude predictor variable, the results showed statistically significant intercept differences for the gender group members. These tests resulted in an R^2 change of .049 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, junior females would be consistently underpredicted in their Algebra grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the ethnic group members, which in this sample were defined as White and Black. Thus, Model 12, which contained only the unit vector and the Electronics composite score in the prediction equation, could be used in the prediction of Algebra course grade for juniors during this school year.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Using the Electronics composite as the aptitude predictor resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. Again, Model 9 or 12 could be used in the prediction of Algebra course grade for these juniors.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Using the Electronics composite in the equations resulted in statistically significant intercept differences for the gender group members. With an R^2 change of .055 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction system for these seniors. Using this composite, senior females would be consistently underpredicted in their Algebra grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in statistically significant slope differences for the ethnic group members, which in this sample were defined as White and Nonwhite. With an R^2 change of .022 ($p \leq .01$) for the Model 10 vs Model 11 comparison, Model 10 would be the best prediction equation for

this sample. The change in the Algebra grade per unit change in the ASVAB Electronics composite was significantly different for these White and Nonwhite seniors.

Geometry

Freshmen 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black, and Hispanic ethnic group differences were studied by not including the gender variables in the equations. These tests resulted in an R^2 change of .019 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, freshmen females would be consistently underpredicted in their Geometry grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

Using the Electronics composite in the prediction equations resulted in no statistically significant slope or intercept differences for the three ethnic groups. Thus, Model 12 could be used in the prediction of Geometry course grades obtained by freshmen in the 1985-86 school year.

Sophomores 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black, and Hispanic ethnic group differences were studied by not including the gender variables in the eq ations. Using the Electronics composite in the equations resulted in statistically significant intercept differences for the gender group members. With an R^2 change of .030 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction system for these sophomores. Using this composite, sophomore females would be consistently underpredicted in their Geometry grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

As in the Freshmen sample, using the Electronics composite resulted in no statistically significant slope of intercept differences for the three ethnic groups. Model 12 could be used in the prediction of Geometry course grade for these sophomores.

Sophomores 1985-86. At f rst, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. With the Electronics composite as the aptitude measure, the results showed statistically significant intercept differences for the gender group members. With an R^2 change of .040 ($p \leq .01$) for the Model 8

vs Model 9 comparison, Model 8 would be the best prediction equation for Geometry course grade for these sophomores. Using this composite, sophomore females would be consistently underpredicted in their Geometry grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

When the model comparisons were made for ethnic group differences, using the Electronics composite within the equations, the results showed statistically significant slope differences between the White and Black regression lines. The R^2 change for the Model 10 and Model 11 comparison was approximately .017 ($p \leq .01$), with Model 10 being the best prediction equation for this sample's Geometry grade. Thus, the change in the Geometry grade per unit change in the ASVAB Electronics composite was significantly different for these White and Black sophomores.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. With the Electronics composite as the aptitude measure, the results showed statistically significant intercept differences for the gender group members. With an R^2 change of .045 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction equation for Geometry course grade for these sophomores. Using this composite, sophomore females would be consistently underpredicted in their Geometry grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

As in the Freshmen sample, using the Electronics composite resulted in no statistically significant slope of intercept differences for the two ethnic groups. Model 12 could be used in the prediction of Geometry course grade for these sophomores.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. As in some of the other Geometry samples, using the Electronics composite in the prediction equations resulted in statistically significant intercept differences for the gender group members. With an R^2 change of .052 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction equation for Geometry course grade for these juniors. Using this composite, junior females would be consistently underpredicted in their Geometry grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

When the model comparisons were made for ethnic group differences, using the Electronics composite, the results showed statistically significant slope differences between the White and Nonwhite regression lines. The R^2 change for the Model 10 and Model 11 comparison was approximately .040 ($p \leq .01$), with Model 10 being the best prediction equation for this sample's Geometry grade. Thus, the change in the Geometry grade per unit change in the ASVAB Electronics composite was significantly different for these White and Nonwhite juniors.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. In this sample, the Electronics composite equations resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. Model 9 or 12 could be used in the prediction of Geometry course grade for these seniors.

Calculus

Juniors 1985-86. This was the only Calculus sample which possessed more than 50 cases, and only gender group differences were tested. The Electronics composite, as the predictor variable, resulted in no statistically significant slope or intercept differences for the gender group members. Model 9 could be used in the prediction of Calculus course grade for these individuals.

General Science

Freshmen 1984-85. Using the Electronics high school composite with this sample, the results showed no statistically significant differences between the Model 2 vs Model 4 comparison. Model 4 included the unit vector, the Electronics composite score, and the sex by ethnicity two-way interaction predictor variables, with ethnicity membership being defined as White, Black and Hispanic. With Model 4 as the best prediction equation for this sample's General Science grade, no differential validity was evidenced for the ethnicity by Electronics score two-way interaction variables or the sex by Electronics score two-way interaction variables.

Freshmen 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. Using the Electronics

composite as the aptitude predictor variable resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. Model 9 or 12, which contained the unit vector and the Electronics composite score, could be used in the prediction of General Science course grades obtained by freshmen in 1985-86.

Sophomores 1984-85. The use of this composite resulted in statistically significant intercept differences in the prediction equations for the gender groups, with an R^2 change of .032 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the Electronics composite as the predictor variable, sophomore females would be consistently underpredicted in their General Science grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score, the results showed no statistically significant slope or intercept differences for White and Nonwhite sophomores, which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the Electronics composite score in the prediction equation, could be used in the prediction of General Science course grade for these sophomores.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. The results showed statistically significant intercept differences for the gender group members. These tests resulted in an R^2 change of .041 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, sophomore females would be consistently underpredicted in their General Science grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Using the Electronics composite as the aptitude predictor variable resulted in no statistically significant slope or intercept differences for the ethnic group members. Model 12, which contained the unit vector and the Electronics composite score, could be used in the prediction of General Science course grades obtained by sophomores in 1985-86.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. Using the Electronics composite within the prediction equation resulted in no statistically significant slope or intercept differences between

the male and female regression lines. Again, Model 9 could be used in the prediction of General Science course grades obtained by juniors in this school year.

When the model comparisons were made for ethnic group differences, using the Electronics composite, the results showed statistically significant intercept differences between the White and Black regression lines. The R^2 change for the Model 11 and Model 12 comparison was approximately .063 ($p \leq .01$), with Model 11 being the best prediction equation for this sample's General Science grade. Thus, using this composite, White sophomores would be consistently underpredicted in their General Science grades if the common regression line were used, while Black sophomores would be consistently overpredicted if a common regression line were used.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Using the Electronics composite, the results showed statistically significant inter t differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .026 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's General Science grade. Thus, using this composite, sophomore females would be consistently underpredicted in their General Science grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

This Electronics composite prediction equation resulted in no statistically significant slope or intercept differences for the ethnic group members. Thus, Model 12 could be used in the prediction of General Science course grades obtained by juniors in 1985-86.

Seniors 1984-85. This sample tested only for gender group differences. Using the Electronics composite equation resulted in no statistically significant slope or intercept differences for the gender groups. Thus, Model 9, which contained the unit vector and the ASVAB Math composite, could be used in the prediction of General Science course grade for these seniors.

Biology I - II

Freshmen 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Using the Electronics composite within the prediction equation resulted in

statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .029 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Biology grade. Thus, using this composite, freshmen females would be consistently underpredicted in their Biology grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

This Electronics composite equation also resulted in no statistically significant slope or intercept differences for the ethnic group members. Again, Model 12 could be used in the prediction of Biology course grades obtained by freshmen in 1984-85.

Freshmen 1985-86. The use of this composite resulted in statistically significant intercept differences in the prediction equations for the two freshmen gender groups, with an R^2 change of .044 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the Electronics composite as the predictor variable, freshmen females would be consistently underpredicted in their Biology grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score, the results showed no statistically significant slope or intercept differences for White and Black freshmen, which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the Electronics composite score in the prediction equation, could be used in the prediction of Biology course grade for these freshmen.

Sophomores 1984-85. Using the Electronics high school composite with this sample, the results showed statistically significant differences between the Model 2 vs Model 4 and the Model 2 vs Model 5 comparisons. However, the Model 2 vs Model 6 comparsion showed that these two models were not significantly different. Model 6 included the unit vector, the Electronics score by sex two-way interaction predictor variables, and the sex by ethnicity two-way interaction predictor variables. With Model 6 as the best prediction equation for this sample's Biology grade, no differential validity was evidenced for the ethnicity by Electronics score two-way interaction variables, with ethnicity being defined as White, Black and Hispanic group membership.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. These tests resulted statistically significant intercept differences

between the gender group members and an R^2 change of .078 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, sophomore females would be consistently underpredicted in their Biology grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the three ethnic groups. Thus, Model 12, which contained only the unit vector and the Electronics composite score in the prediction equation, could be used in the prediction of Biology course grade for these sophomores during this school year.

Juniors 1984-85. The use of this composite resulted in statistically significant intercept differences in the prediction equations for the two junior gender groups, with an R^2 change of .056 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the Electronics composite as the predictor variable, junior females would be consistently underpredicted in their Biology grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score, the results showed no statistically significant slope or intercept differences for White and Nonwhite juniors, which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the Electronics composite score in the prediction equation, could be used in the prediction of Biology course grade for these juniors.

Juniors 1985-86. This sample tested only for gender group differences. Using the Electronics composite as the predictor variable resulted in statistically significant intercept differences for the gender groups. With an R^2 change of .058 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction equation of Biology course grade for these juniors. Using the Electronics composite as the predictor variable, junior females would be consistently underpredicted in their Biology grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. The use of this Electronics composite in the equations resulted in statistically significant intercept differences for the gender members. With an R^2 change of .047 ($p \leq .01$) for the Model 8 vs Model 9

comparison, Model 8 would be the best prediction equations for these seniors. Using this composite, senior females would be consistently underpredicted in their Biology grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the Electronics composite as the predictor composite, the results showed statistically significant intercept differences in the prediction equations for the White and Black ethnic groups, with an R^2 change of .040 ($p \leq .01$) for the Model 11 vs Model 12 comparison. Therefore, Model 11 would be the best prediction equation for this sample. Using the Electronics composite as the predictor variable, White seniors would be consistently underpredicted in their Biology grades if the common regression line were used, while Black seniors would be consistently overpredicted if a common regression line were used.

Chemistry I - II

Freshmen 1985-86. This sample tested only for gender group differences. Using the Electronics composite in the equations, the results showed no statistically significant slope or intercept differences for the gender groups. Thus, Model 9, which contained only the unit vector and the Electronics composite score in the prediction equation, could be used in the prediction of Chemistry course grade for these freshmen.

Sophomores 1984-85. This sample also tested only for gender group differences. Again, with the Electronics composite in the equations, the results showed statistically significant intercept differences for the gender groups. With an R^2 change of .039 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 could be used in the prediction of Chemistry course grades obtained by these sophomores. Sophomore females would be consistently underpredicted in their Chemistry grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Sophomores 1985-86. This sample tested only for gender group differences. Using the Electronics composite as the predictor variable, the results indicated statistically significant intercept differences for the gender groups. With an R^2 change of .064 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction system of Chemistry course grade for these sophomores. Using this composite, sophomore females would be consistently underpredicted in their Chemistry grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White

and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The use of this Electronics composite in the equations resulted in statistically significant intercept differences for the gender and two ethnic group members. With R^2 changes of .070 and .016 ($p \leq .01$) for the Model 8 vs Model 9 and the Model 11 vs Model 12 comparisons, Models 8 and 11 would be the best prediction equations for these juniors. Using this composite, junior females would be consistently underpredicted in their Chemistry grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used. Conversely, if a common regression line using the Electronics composite as the aptitude measure were used in the prediction of Chemistry course grade, White juniors would be consistently underpredicted on this criterion while Nonwhite juniors would be consistently overpredicted.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The use of this composite resulted in statistically significant intercept differences in the prediction equations for the two junior gender groups, with an R^2 change of .094 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the Electronics composite as the predictor variable, junior females would be consistently underpredicted in their Chemistry grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score, the results again showed no statistically significant slope or intercept differences for White and Nonwhite juniors, which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the Electronics composite score in the prediction equation, could be used in the prediction of Chemistry course grade for these juniors.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Using the Electronics composite, the results showed no statistically significant slope or intercept differences for the gender or White and Nonwhite ethnic group members. Model 9 or 12 could be used in the prediction of Chemistry course grades obtained by seniors during this school year.

Physics I - II

Juniors 1985-86. This sample tested only for gender group differences. The use of this composite resulted in statistically significant intercept differences in the prediction equations for the two junior gender groups, with an R^2 change of .048 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the Electronics composite as the predictor variable, junior females would be consistently underpredicted in their Physics grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Seniors 1984-85. This sample tested only for gender group differences. The Electronics composite equations again resulted in statistically significant intercept differences for the gender groups. An R^2 change of .073 ($p \leq .01$) for the Model 8 vs Model 9 comparison was evidenced; therefore, Model 8 would be the best prediction equation for this sample. Using the Electronics composite as the predictor variable, senior females would be consistently underpredicted in their Physics grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

Government and Civics

Freshmen 1984-85. This sample tested only for gender group differences. The Electronics composite prediction equations resulted in statistically significant intercept differences for the gender groups. Thus, with an R^2 change of .017 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best predictor for this group's Government course grade. Freshmen females would be consistently underpredicted in their Government grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

Sophomore 1984-85. This sample tested for gender group differences. Using the Electronics composite as the predictor variable, the results showed statistically significant intercept differences for the gender groups. An R^2 change of .047 ($p \leq .01$) for the Model 8 vs Model 9 comparison was evidenced; therefore, Model 8 would be the best prediction equation for this sample. Using the Electronics composite as the predictor variable, sophomore females would be consistently underpredicted in their Government grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The use of this

Electronics composite in the equations resulted in statistically significant intercept differences for the gender and two ethnic group members. With R^2 changes of .043 and .024 ($p \leq .01$) for the Model 8 vs Model 9 and the Model 11 vs Model 12 comparisons, Models 8 and 11 would be the best prediction equations for these sophomores. Using this composite, sophomore females would be consistently underpredicted in their Government grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used. Conversely, if a common regression line using the Electronics composite as the aptitude measure were used in the prediction of Government course grade, White sophomores would be consistently underpredicted on this criterion while Hispanic sophomores would be consistently overpredicted.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. However, the use of this Electronics composite in the equations resulted in statistically significant intercept differences for only the gender subgroup. With R^2 change of .042 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction equation for these juniors. Using this composite, junior females would be consistently underpredicted in their Government grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score, the results showed no statistically significant slope or intercept differences for White and Nonwhite juniors, which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the Electronics composite score in the prediction equation, could be used in the prediction of Government course grade for these juniors.

Juniors 1985-86. This sample, using the Electronics high school composite score as the aptitude predictor variable, resulted in statistically significant intercept differences for the gender group members. With an R^2 change of .049 ($p \leq .001$) for the Model 8 vs Model 9 comparison, Model 8 was the best prediction equation for this sample. Using this composite, junior females would be consistently underpredicted in their Government grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score, the results showed no statistically significant slope or intercept differences for White and Black juniors, which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only

the unit vector and the Electronics composite score in the prediction equation, could be used in the prediction of Government course grade for these juniors.

Seniors 1984-85. Similar to some of the previous samples, using the Electronics composite score as the aptitude predictor variable, resulted in statistically significant intercept differences for the gender group members. With R^2 change of .028 ($p \leq .001$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction equation for these seniors. Using this composite, senior females would be consistently underpredicted in their Government grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

When ethnic group differences were investigated using this composite, the results showed no statistically significant slope or intercept differences for the White and Black ethnic group members. Again, Model 12, which contained only the unit vector and the Electronics composite score in the prediction equation, could be used in the prediction of Government course grades for these seniors.

History

Freshmen 1984-85. The use of the ASVAB Electronics composite as the aptitude predictor variable showed statistically significant intercept differences in the prediction equations for the two freshmen gender groups and resulted in an R^2 change of .046 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, freshmen females would be consistently underpredicted in their History grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

The use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White, Black and Hispanic ethnic group members. Thus, Model 12, which contained only the unit vector and the Electronics composite score in the prediction equation, could be used in the prediction of History course grades obtained by freshmen during this school year.

Freshmen 1985-86. This sample, using the Electronics high school composite score as the aptitude predictor variable, resulted in statistically significant intercept differences in the prediction equations for the two freshmen gender groups and resulted in an R^2 change of .020 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, freshmen females would be consistently

underpredicted in their History grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

The use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Black ethnic group members. Thus, Model 12, which contained only the unit vector and the Electronics composite score in the prediction equation, could be used in the prediction of History course grades obtained by freshmen during this school year.

Sophomores 1984-85. Using the Electronics high school composite score as the aptitude predictor variable, the results showed statistically significant intercept differences in the prediction equations for the two sophomore gender groups and resulted in an R^2 change of .033 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, sophomore females would be consistently underpredicted in their History grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Again, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Black ethnic group members. Thus, Model 12, which contained only the unit vector and the Electronics composite score in the prediction equation, could be used in the prediction of History course grades obtained by sophomores during this school year.

Sophomores 1985-86. The use of this composite resulted in statistically significant intercept differences in the prediction equations for the gender groups, with an R^2 change of .032 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the Electronics composite as the predictor variable, sophomore females would be consistently underpredicted in their History grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score, the results showed no statistically significant slope or intercept differences for White, Black and Hispanic sophomores, which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the Electronics composite score in the prediction equation, could be used in the prediction of History course grade for these sophomores.

Juniors 1984-85. Like the 1985-86 freshmen sample, this sample, using the Electronics high school composite score as the aptitude predictor variable, resulted in statistically

significant intercept differences in the prediction equations for the two junior gender groups and resulted in an R^2 change of .053 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, junior females would be consistently underpredicted in their History grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Again, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Black ethnic group members. Thus, Model 12, which contained only the unit vector and the Electronics composite score in the prediction equation, could be used in the prediction of History course grades obtained by juniors during this school year.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. Using the Electronics high school composite score as the aptitude predictor variable, the results showed statistically significant slope differences in the prediction equations for the two junior gender groups and resulted in an R^2 change of .013 ($p \leq .01$) for the Model 7 vs Model 8 comparison. Therefore, Model 7 would be the best prediction equation for this sample. The change in the History grade per unit change in the Electronics high school composite was significantly different for freshmen males and females.

The use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Black ethnic group members. Thus, Model 12, which contained only the unit vector and the Electronics composite score in the prediction equation, could be used in the prediction of History course grades obtained by juniors during this school year.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. The use of the Electronics composite in the prediction equations resulted in statistically significant intercept differences for the gender group members. An R^2 change of .026 ($p \leq .01$) for the Model 8 vs Model 9 comparison was evidenced. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, senior females would be consistently underpredicted in their History grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

Statistically significant intercept differences also resulted between the White and Black ethnic subgroups. With an R^2 change of .023 ($p \leq .01$) for the Model 11 vs Model 12 comparison, Model 11 would be the best prediction system. Thus, if a common regression line using the Electronics composite as the aptitude measure were used in the prediction of History course grade, White seniors would be consistently underpredicted on this criterion while Black seniors would be consistently overpredicted.

Foreign Language

Freshmen 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The use of the ASVAB Electronics composite as the aptitude predictor variable showed statistically significant intercept differences in the prediction equations for the two freshmen gender groups. The results showed an R^2 change of .077 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the aptitude predictor variable, freshmen females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

The use of this ASVAB composite score in the equations also resulted in statistically significant intercept differences in the prediction equations for the White, Black and Hispanic ethnic groups and resulted in an R^2 change of .020 ($p \leq .01$) for the Model 11 vs Model 12 comparison. Therefore, Model 11 would be the best prediction equation for this sample. Using this composite as the aptitude predictor variable, White and Hispanic freshmen would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while Black freshmen would be consistently overpredicted if a common regression line were used.

Freshmen 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. When the model comparisons were made for gender group differences, using the Electronics composite within the equations, the results showed statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .067 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Foreign Language grade. Thus, freshmen females would be

consistently underpredicted in their Foreign Language grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

When the model comparisons were made for ethnic group differences, using the Electronics composite within the equations, the results showed statistically significant slope differences between the White, Black and Hispanic regression lines. The R^2 change for the Model 10 and Model 11 comparison was approximately .010 ($p \leq .01$), with Model 10 being the best prediction equation for this sample's Foreign Language grade. Thus, the change in the Foreign Language grade per unit change in the ASVAB Electronics composite was significantly different for these White, Black and Hispanic freshmen.

Sophomores 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black, and Hispanic ethnic group differences were studied by not including the gender variables in the equations. When the model comparisons were made for gender group differences, using the Electronics composite within the equations, the results again showed statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .104 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Foreign Language grade. Thus, sophomore females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

When the model comparisons were made for ethnic group differences using of this Electronics composite in the prediction equations, the results also showed statistically significant intercept differences between the White, Black and Hispanic regression lines. Again, the Electronics prediction equations showed statistically significant intercept differences between the White, Black and Hispanic regression lines. The R^2 change for the Model 11 and Model 12 comparison was approximately .011 ($p \leq .01$), with Model 11 being the best prediction equation for this sample's Foreign Language grade. White and Hispanic sophomores would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while Black sophomores would be consistently overpredicted if a common regression line were used.

Sophomores 1985-86. Using the ASVAB Electronics composite as the aptitude predictor in the equations showed statistically significant intercept differences in the prediction equations for the two sophomore gender groups and resulted in an R^2 change of .079 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample.

Using this composite sophomore females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

The use of this ASVAB composite score in the prediction equations resulted in no statistically significant slope or intercept differences for the White and Nonwhite ethnic group members. Thus, Model 12, which contained only the unit vector and the Electronics composite score in the prediction equation, could be used in the prediction of Foreign Language course grades obtained by sophomores during this school year.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The use of the Electronics composite as a predictor measure showed statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .108 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Foreign Language grade. Thus, using this predictor composite, junior females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

When the model comparisons were made for ethnic group differences, the Electronics predictor composite also resulted in statistically significant intercept differences for the ethnic group members. The R^2 change for the Model 11 vs Model 12 comparison was .023 ($p \leq .01$); therefore, Model 11 would be the best prediction equation for these juniors' Foreign Language course grade. Using this composite White and Hispanic juniors would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while Black juniors would be consistently overpredicted if a common regression line were used.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The Electronics prediction equations resulted in statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .071 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Foreign Language grade. Thus, using this predictor composite, junior females would be

consistently underpredicted in their Foreign Language grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

When testing for ethnic group differences, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Hispanic ethnic group members. Thus, Model 12, which contained only the unit vector and the Electronics composite score in the prediction equation, could be used in the prediction of Foreign Language course grades obtained by juniors during this school year.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Hispanic ethnic group differences were studied by not including the gender variables in the equations. Again, the Electronics prediction equations resulted in statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .031 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Foreign Language grade. Thus, using this predictor composite, senior females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

The Electronics composite prediction equations resulted in no statistically significant slope or intercept differences for the two ethnic groups. Model 12 could be used in the prediction of Foreign Language course grade for these individuals.

Secretary and Office Education

Juniors 1985-86. This sample tested only for White and Nonwhite ethnic group differences. Using the Electronics composite as the aptitude predictor variable, the results showed no statistically significant slope or intercept differences for the ethnic groups. Thus, Model 12, which contained the unit vector and the ASVAB Electronics composite, could be used in the prediction of this course grade for these juniors.

Seniors 1984-85. This sample tested only for White and Nonwhite ethnic group differences. Again, using the Electronics composite prediction equations the results showed no statistically significant slope or intercept differences for the ethnic groups. Thus, Model 12, which contained the unit vector and the ASVAB Electronics composite, could be used in the prediction of Secretary and Office course grades obtained by these seniors.

Typing and Word Processing

Freshmen 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The Electronics prediction equations resulted in statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .027 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Typing grade. Thus, using this predictor composite, freshmen females would be consistently underpredicted in their Typing grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

When testing for ethnic group differences, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White, Black and Hispanic ethnic group members. Thus, Model 12 which contained only the unit vector and the Electronics composite score in the prediction equation, could be used in the prediction of Typing course grades obtained by freshmen during this school year.

Freshmen 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The Electronics prediction equations resulted in statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .040 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Typing grade. Thus, using this predictor composite, freshmen females would be consistently underpredicted in their Typing grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

When testing for ethnic group differences, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Hispanic ethnic group members. Thus, Model 12, which contained only the unit vector and the Electronics composite score in the prediction equation, could be used in the prediction of Typing course grades obtained by freshmen during this school year.

Sophomores 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations

by not including the gender variables in the equations. The results again showed statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .065 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Typing grade. Thus, using this predictor composite, sophomore females would be consistently underpredicted in their Typing grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Again, when testing for ethnic group differences, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White, Black and Hispanic ethnic group members. Thus, Model 12, which contained only the unit vector and the Electronics composite score in the prediction equation, could be used in the prediction of Typing course grades obtained by sophomores during this school year.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. The Electronics prediction equations showed statistically significant slope differences between the male and female regression lines. The R^2 change for the Model 7 and Model 8 comparison was approximately .014 ($p \leq .01$), with Model 7 being the best prediction equation for this sample's Typing grade. The change in the Typing grade per unit change in the Electronics high school composite was significantly different for sophomore males and females.

Using the Electronics composite as the aptitude predictor variable, the results showed no statistically significant slope or intercept differences for the ethnic group members. Again, Model 12 could be used in the prediction of Typing course grade for these sophomores.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. As in the sophomore 1984-85 sample, the results showed statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .090 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Typing grade. Thus, using this predictor composite, junior females would be consistently underpredicted in their Typing grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Again, when testing for ethnic group differences, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Black ethnic group members. Thus, Model 12, which contained only the unit vector and the Electronics composite score in the prediction equation, could be used in the prediction of Typing course grades obtained by juniors during this school year.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. As in the previous sample, the results showed statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .055 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Typing grade. Thus, using this predictor composite, junior females would be consistently underpredicted in their Typing grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Again, when testing for ethnic group differences, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Nonwhite ethnic group members. Thus, Model 12, which contained only the unit vector and the Electronics composite score in the prediction equation, could be used in the prediction of Typing course grades obtained by juniors during this school year.

Seniors 1984-85. This sample tested only for gender group differences. The Electronics composite equations resulted in statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .048 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Typing grade. Thus, using this predictor composite, senior females would be consistently underpredicted in their Typing grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

Accounting and Bookkeeping

Sophomores 1985-86. This sample tested only for gender group differences. The use of the ASVAB Electronics composite as the predictor variable showed statistically significant intercept differences in the prediction equations for the two sophomore gender groups and resulted in an R^2 change of .067 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this

composite as the predictor variable, sophomore females would be consistently underpredicted in their Accounting grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Juniors 1984-85. This sample tested for gender group differences. Again, using the Electronics composite prediction equations, the results showed statistically significant intercept differences in the prediction equations for the two junior gender groups and resulted in an R^2 change of .137 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, junior females would be consistently underpredicted in their Accounting grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Juniors 1985-86. This sample tested only for gender group differences. As in the previous sample, using the Electronics composite prediction equations, the results showed statistically significant intercept differences in the prediction equations for the two junior gender groups and resulted in an R^2 change of .058 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, junior females would be consistently underpredicted in their Accounting grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Seniors 1984-85. Like the junior samples, this sample tested for gender group differences. Using the Electronics composite prediction equations, the results showed statistically significant intercept differences in the prediction equations for the two gender groups and resulted in an R^2 change of .067 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, senior females would be consistently underpredicted in their Accounting grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

Home Economics

Freshmen 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. The prediction equations with the ASVAB Electronics composite showed statistically significant intercept differences in the prediction equations for the two freshmen gender groups and resulted in an R^2 change of .062 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample.

Using this composite, freshmen females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB Electronics composite, the results showed statistically significant intercept differences in the prediction equations for the two ethnic groups. An R^2 change of .066 ($p \leq .01$) for the Model 11 vs Model 12 comparison was evidenced; and Model 11 could be used in the prediction of Home Economics course grade for these freshmen. Using this predictor composite, freshmen Whites would be consistently underpredicted in their Home Economics grades if the common regression line were used, while freshmen Blacks would be consistently overpredicted if a common regression line were used.

Freshmen 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Using the Electronics composite as a predictor variable, the results showed statistically significant intercept differences for these two freshmen gender groups and resulted in an R^2 change of .079 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the aptitude measure, freshmen females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB Electronics composite, the results showed no statistically significant slope or intercept differences in the prediction equations for the two ethnic groups. Model 12 could be used in the prediction of Home Economics course grade for these freshmen.

Sophomore 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The prediction equations with the ASVAB Electronics composite showed statistically significant intercept differences in the prediction equations for the two gender groups and resulted in an R^2 change of .071 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, sophomore females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB Electronics composite, the results showed statistically significant intercept differences in the prediction equations for the two ethnic groups. An R^2 change of .035 ($p \leq .01$) for the Model 11 vs Model 12 comparison was evidenced; and Model 11 could be used in the prediction of Home Economics course grade for these sophomores. Using this predictor composite, White sophomores would be consistently underpredicted in their Home Economics grades if the common regression line were used, while Nonwhite sophomores would be consistently overpredicted if a common regression line were used.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The use of the Electronics composite prediction equations resulted in statistically significant intercept differences for the gender group members and resulted in an R^2 change of .084 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, sophomore females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB Electronics composite, the results showed no statistically significant slope or intercept differences in the prediction equations for the two ethnic groups. Model 12 could be used in the prediction of Home Economics course grade for these sophomores.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The use of the Electronics composite prediction equations resulted in statistically significant intercept differences for the gender group members and resulted in an R^2 change of .046 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, junior females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB Electronics composite, the results showed no statistically significant slope or intercept differences in the

prediction equations for the two ethnic groups. Model 12 could be used in the prediction of Home Economics course grade for these juniors.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Again, this sample, using the Electronics composite equations, resulted in statistically significant intercept differences for the gender group members. An R^2 change of .144 ($p \leq .01$) for the Model 8 vs Model 9 comparison was evidenced; therefore, Model 8 would be the best prediction equation for this sample. Using this predictor composite junior females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB Electronics composite, the results indicated no statistically significant slope or intercept differences in the prediction equations for the two ethnic groups. Model 12 could be used in the prediction of Home Economics course grade for these juniors.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. As in the junior 1985-86 sample, the Electronics composite equations resulted in statistically significant intercept differences for the gender group members. An R^2 change of .059 ($p \leq .01$) was obtained for the Model 8 vs Model 9 comparison; therefore, Model 8 would be the best prediction equation for this sample. Using this composite senior females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

The tests for ethnic group differences were conducted using the ASVAB Electronics composite, and the results showed no statistically significant slope or intercept differences in the prediction equations for the two ethnic groups. Model 12 could be used in the prediction of Home Economics course grade for these seniors.

Computer Programming

Sophomores 1985-86. This sample tested only for gender group differences. Using the Electronics composite as a predictor variable, the results showed statistically significant intercept

differences for the gender group members. An R^2 change of .104 ($p \leq .01$) was obtained for the Model 8 vs Model 9 comparison; therefore, Model 8 would be the best prediction equation for this sample. Using this composite sophomore females would be consistently underpredicted in thei. Computer Programming grades if the common regression line were 'sed, while sophomore males would be consistently overpredicted i.' a common regression line were used.

Juniors 1984-85. Like the sophomore sample, this sample tested for gender group differences. Again, using the Electronics composite as a predictor variable, the results showed statistically significant intercept differences for the gender group members. An R^2 change of .049 ($p \leq .01$) was obtained for the Model 8 vs Model 9 comparison; therefore, Model 8 would be the best prediction equation for this sample. Using this composite junior females would be consistently underpredicted in their Computer Programming grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Juniors 1985-86. The model comparisons tested only for gender group differences. Usin the ASVAB Electronics predictor composite, the results showed statistically significant intercept differences in the prediction equations for the two junior gender groups and resulted in an R^2 change of .133 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite junior females would be consistently underpredicted in their Computer Programming grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Seniors 1984-85. As in the previous Computer Programming samples, this sample tested for gender group differences. The Electronics composite prediction equations resulted in no statistically significant slope or intercept differences for the gender groups. Thus, Model 9, which contained the unit vector and the ASVAB Electronics composite, could be used in the prediction of Computer Programming course grades obtained by seniors for this year.

Table 10. Summary of Equity Findings for Prediction of High School Course Grades by Electronics High School Composite

Course		Sex	Ethnicity	Sex*Ethnicity
English I-IV				
Fresh	84-85	NS	NS	I
Fresh	85-86	I	E	NS
Soph	84-85	S	E	NS
Soph	85-86	S	I	NS
Jr	84-85	S	E	NS
Jr	85-86	S	E	NS
Sr	84-85	I	E	NS
General Math				
Fresh	84-85	I	E	NS
Fresh	85-86	E	E	NS
Soph	84-85	E	E	NS
Soph	85-86	I	E	NS
Jr	84-85	E	E	NS
Jr	85-86	I	E	NS
Sr	84-85	E	E	NS
Algebra				
Fresh	84-85	I	E	NS
Fresh	35-86	I	E	NS
Soph	84-85	I	E	NS
Soph	85-86	I	E	NS
Jr	84-85	I	E	NS
Jr	85-86	E	E	NS
Sr	84-85	I	S	NS
Geometry				
Fresh	85-86	I	E	NS
Soph	84-85	I	E	NS
Soph	85-86	I	S	NS
Jr	84-85	I	E	NS
Jr	85-86	I	S	NS
Sr	84-85	E	E	NS
Calculus				
Jr	85-86	E	NT	NS
General Science				
Fresh	84-85	NS	NS	I
Fresh	85-86	E	E	NS
Soph	84-85	I	E	NS
Soph	85-86	I	E	NS
Jr	84-85	E	I	NS
Jr	85-86	I	E	NS
Sr	84-85	E	NT	NS
Biology				
Fresh	84-85	I	E	NS
Fresh	85-86	I	E	NS
Soph	84-85	S	NS	I
Soph	85-86	I	E	NS
Jr	84-85	I	E	NS
Jr	85-86	I	NT	NS
Sr	84-85	I	I	NS

Note. NS = Not significant; I = Intercept differences; S = Slope differences; E = Equitable test, no significant slope or intercept differences found; NT = Not tested due to small sample sizes.

Table 10. (Continued)

Course		Sex	Ethnicity	Sex*Ethnicity
Chemistry				
Fresh	85-86	E	NT	NS
Soph	84-85	I	NT	NS
Soph	85-86	I	NT	NS
Jr	84-85	I	I	NS
Jr	85-86	I	E	NS
Sr	84-85	E	E	NS
Physics				
Jr	85-86	I	NT	NS
Sr	84-85	I	NT	NS
Government				
Fresh	84-85	I	NT	NS
Soph	84-85	I	NT	NS
Soph	85-86	I	I	NS
Jr	84-85	I	E	NS
Jr	85-86	I	E	NS
Sr	84-85	I	E	NS
History				
Fresh	84-85	I	E	NS
Fresh	85-86	I	E	NS
Soph	84-85	I	E	NS
Soph	85-86	I	E	NS
Jr	84-85	I	E	NS
Jr	85-86	S	E	NS
Sr	84-85	I	I	NS
Foreign Language				
Fresh	84-85	I	I	NS
Fresh	85-86	I	S	NS
Soph	84-85	I	I	NS
Soph	85-86	I	E	NS
Jr	84-85	I	I	NS
Jr	85-86	I	E	NS
Sr	84-85	I	E	NS
Secretary & Ofc				
Jr	85-86	NT	E	NS
Sr	84-85	NT	E	NS
Typing				
Fresh	84-85	I	E	NS
Fresh	85-86	I	E	NS
Soph	84-85	I	E	NS
Soph	85-86	S	E	NS
Jr	84-85	I	E	NS
Jr	85-86	I	E	NS
Sr	84-85	I	NT	NS
Accounting				
Soph	85-86	I	NT	NS
Jr	84-85	I	NT	NS
Jr	85-86	I	NT	NS
Sr	84-85	I	NT	NS

Note. NS = Not significant; I = Intercept differences; S = Slope differences; E = Equitable test, no significant slope or intercept differences found; NT = Not tested due to small sample sizes.

Table 10. (Concluded)

Course	Sex	Ethnicity	Sex*Ethnicity
Home Economics			
Fresh 84-85	I	I	NS
Fresh 85-86	I	E	NS
Soph 84-85	I	I	NS
Soph 85-86	I	E	NS
Jr 84-85	I	E	NS
Jr 85-86	I	E	NS
Sr 84-85	I	E	NS
Computer Program			
Soph 85-86	I	NT	NS
Jr 84-85	I	NT	NS
Jr 85 86	I	NT	NS
Sr 84-85	E	NT	NS

Note. NS = Not significant; I = Intercept differences; S = Slope differences; E = Equitable test, no significant slope or intercept differences found; NT = Not tested due to small sample sizes.

Health, Social and Technical High School Composite

English I - IV

Freshmen 1984-85. Using the Health high school composite with this sample, the results showed no statistically significant differences between the Model 2 vs Model 4 comparison. Model 4 included the unit vector, the Health composite score, and the sex by ethnicity two-way interaction predictor variables, with ethnicity membership being defined as White, Black and Hispanic. With Model 4 as the best prediction equation for this sample's English grade, no differential validity was evidenced for the ethnicity by Health score two-way interaction variables or the sex by Health score two-way interaction variables.

Freshmen 1985-86. This composite showed statistically significant intercept differences in the prediction equations for the two freshmen gender groups and resulted in an R^2 change of .048 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the Health composite as the predictor variable freshmen females would be consistently underpredicted in their English grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

When the model comparisons were made for ethnic group differences, using this ASVAB composite resulted in no statistically significant slope or intercept differences among the White, Black and Hispanic regression lines. Thus, Model 12,

which contained the unit vector and the Health high school composite score, could be used in the prediction of English grades obtained by freshmen during this school year.

Sophomores 1984-85. When the model comparisons were made for gender group differences, using the Health composite resulted in statistically significant slope differences between the male and female regression lines. The R^2 change for the Model 7 and Model 8 comparison was approximately .010 ($p \leq .001$), with Model 7 being the best prediction equation for this group's English grade. Thus, the change in the English grade per unit change in the ASVAB Health composite was significantly different for this year's sophomore males and females.

Using this composite score as the aptitude measure resulted in no statistically significant slope or intercept differences for White, Black and Hispanic sophomores which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the Health composite score in the prediction equation, could be used in the prediction of English course grade for these sophomores.

Sophomores 1985-86. The model comparisons for gender group differences using the Health high school composite showed statistically significant slope differences between the male and female regression lines, with Model 7 as the prediction equation to be used for this sample. The R^2 change for the Model 7 and Model 8 comparison was approximately .010 ($p \leq .001$). Thus, the change in the English grade per unit change in the ASVAB Health composite was significantly different for these sophomore males and females.

Statistically significant intercept differences resulted among the White, Black and Hispanic ethnic subgroups. With an R^2 change of .009 ($p \leq .001$) for the Model 11 vs Model 12 comparison, Model 11 would be the best prediction system. Thus, if a common regression line using the Health composite were used in the prediction of English course grade, White and Hispanic sophomores would be consistently underpredicted on the criterion while Black sophomores would be consistently overpredicted.

Juniors 1984-85. When the model comparisons were made for gender group differences, using the Health high school composite resulted in statistically significant slope differences between the male and female regression lines. The R^2 change for the Model 7 and Model 8 comparison was approximately .009 ($p \leq .001$), with Model 7 being the best prediction equation for this group's English grade. Thus, the change in the English grade per unit change in the ASVAB Health composite was significantly different for these junior males and females.

Using this ASVAB composite score as the aptitude predictor variable resulted in no statistically significant slope or intercept differences for White, Black and Hispanic juniors.

Thus, Model 12, which contained only the unit vector and the Health composite score in the prediction equation, could be used in the prediction of English course grade for these individuals.

Juniors 1985-86. As in the 1984-85 school year, using the Health high school composite in the equations showed statistically significant slope differences between the male and female regression lines. The R^2 change for the Model 7 and Model 8 comparison was approximately .009 ($p \leq .001$), with Model 7 being the best prediction equation for English grade. Thus, the change in the English grade per unit change in the ASVAB Health composite was also significantly different for these junior males and females.

Again, using this composite score resulted in no statistically significant slope or intercept differences for the ethnic groups, with this sample including only White and Black individuals. Thus, Model 12, which contained only the unit vector and the Health composite score in the prediction equation, could be used in the prediction of English course grade for these juniors.

Seniors 1984-85. This sample, using the Health high school composite score as the aptitude predictor variable, showed statistically significant intercept differences in the prediction equations for the two senior gender groups and resulted in an R^2 change of .043 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the Health composite as the predictor variable senior females would be consistently underpredicted in their English grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

Using this composite in the prediction equations resulted in no statistically significant slope or intercept differences for the gender group members or the White, Black and Hispanic ethnic group members. Model 12, containing only the unit vector and the Health composite score in the prediction equation, could be used in the prediction of English course grade for these seniors.

General Math

Freshmen 1984-85. This sample, using the Health high school composite score as the aptitude predictor variable, showed statistically significant intercept differences in the prediction equations for the two freshmen gender groups and resulted in an R^2 change of .012 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the Health composite as the predictor variable freshmen females would be consistently underpredicted in their General Math grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

Using this composite in the prediction equations resulted in no statistically significant slope or intercept differences for the gender group members or the White, Black and Hispanic ethnic group members. Model 12, containing only the unit vector and the Health composite score in the prediction equation, could be used in the prediction of General Math course grade for these freshmen.

Freshmen 1985-86. For this sample, the results showed no statistically significant slope or intercept differences for the gender group members or the White and Black ethnic group members. Models 9 or 12, containing only the unit vector and the Health composite score in the prediction equation, could be used in the prediction of General Math course grade for these freshmen.

Sophomores 1984-85. This sample also resulted in no statistically significant slope or intercept differences for the gender group members or the White, Black and Hispanic ethnic group members. Models 9 or 12, which contained only the unit vector and the Health composite score in the prediction equation, could be used in the prediction of General Math course grades obtained during this year by sophomores.

Sophomores 1985-86. This sample, using the Health composite in the equations, showed statistically significant intercept differences between the male and female gender subgroups. With an R^2 change of .042 ($p \leq .001$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction system. Thus, if a common regression line using the Health composite were used in the prediction of General Math course grade, female sophomores would be consistently underpredicted on the criterion while male sophomores would be consistently overpredicted.

The results also showed no statistically significant slope or intercept differences between the White and Black ethnic group members regression lines. Thus, Model 12, containing the unit vector and the Health composite score, could be used in predicting General Math course grade for these individuals.

Juniors 1984-85. In this 1984-85 sample, using the Health high school composite score as the aptitude predictor variable, showed no statistically significant slope or intercept differences for the gender or White and Black ethnic group members. Thus, Models 9 or 12, which contained only the unit vector and the Health composite score in the prediction equation, could be used in the prediction of General Math course grades obtained in 1934-85 by juniors.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. Using the Health high school composite score as the aptitude predictor variable, showed

statistically significant intercept differences between the male and female gender subgroups. With an R^2 change of .040 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction system. Thus, if a common regression line using the Health composite were used in the prediction of General Math course grade, female juniors would be consistently underpredicted on the criterion while male juniors would be consistently overpredicted.

Using the Health composite as the aptitude predictor variable resulted in no statistically significant slope or intercept differences for the ethnic group members. Thus, Model 12, containing the unit vector and the Health composite score, could be used in predicting General Math course grade for these individuals.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. The results showed no statistically significant slope or intercept differences for the gender group or ethnic group members. Again, Model 9 or 12 could be used in the prediction of General Math course grades obtained in 1984-85 by seniors.

Algebra

Freshmen 1984-85. Using the ASVAB Health composite as the predictor variable, the results showed statistically significant intercept differences in the prediction equations for the two gender groups and resulted in an R^2 change of .057 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite freshmen females would be consistently underpredicted in their Algebra grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

Using the Health composite, the results showed no statistically significant slope or intercept differences for the ethnic group members, which in this sample were defined as White and Nonwhite. Thus, Model 12, which contained only the unit vector and the Health composite score in the prediction equation, could be used in the prediction of Algebra course grade for freshmen during this school year.

Freshmen 1985-86. With the Health composite as the aptitude measure the results showed statistically significant intercept differences in the prediction equations for the two gender groups. These comparisons resulted in R^2 changes of .058 ($p \leq .001$) for the Model 8 vs Model 9 tests. Therefore, Model 8 would be the best prediction equation for this sample. Using

this composite, freshmen females would be consistently underpredicted in their Algebra grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the ethnic group members, which in this sample were defined as White and Nonwhite. Thus, Model 12, which contained only the unit vector and the Health composite score in the prediction equation, could be used in the prediction of Algebra course grade for freshmen during this school year.

Sophomores 1984-85. In this 1984-85 sample, using the Health high school composite score as the aptitude predictor variable, the results showed statistically significant intercept differences for the gender group members. These tests resulted in an R^2 change of .036 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, sophomore females would be consistently underpredicted in their Algebra grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the ethnic group members, which in this sample were defined as White and Nonwhite. Thus, Model 12, which contained only the unit vector and the Health composite score in the prediction equation, could be used in the prediction of Algebra course grade for sophomores during this school year.

Sophomores 1985-86. In this sample, using the Health high school composite, the results also showed statistically significant intercept differences for the gender group members. These tests resulted in an R^2 change of .026 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, sophomore females would be consistently underpredicted in their Algebra grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Using the Health composite as the predictor resulted in no statistically significant slope or intercept differences for the White and Black ethnic group members. Thus, Model 12, which contained only the unit vector and the Health composite score in the prediction equation, could be used in the prediction of Algebra course grades obtained in 1985-86 by sophomores.

Juniors 1984-85. In this 1984-85 sample, using the Health high school composite score as the aptitude predictor variable, the results showed statistically significant intercept

differences for the gender group members. These tests resulted in an R^2 change of .047 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, junior females would be consistently underpredicted in their Algebra grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the ethnic group members, which in this sample were defined as White and Black. Thus, Model 12, which contained only the unit vector and the Health composite score in the prediction equation, could be used in the prediction of Algebra course grade for juniors during this school year.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Using the Health composite as the aptitude predictor resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. Again, Model 9 or 12 could be used in the prediction of Algebra course grade for these juniors.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Using the Health composite in the equations resulted in statistically significant intercept differences for the gender group members. With an R^2 change of .050 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction system for these seniors. Using this composite, senior females would be consistently underpredicted in their Algebra grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the ethnic group members, which in this sample were defined as White and Nonwhite. Thus, Model 12 could be used in the prediction of Algebra course grades obtained by seniors in the 1984-85 school year.

Geometry

Freshmen 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the

White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. These tests resulted in an R^2 change of .019 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, freshmen females would be consistently underpredicted in their Geometry grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

Using the Health composite in the prediction equations resulted in no statistically significant slope or intercept differences for the three ethnic groups. Thus, Model 12 could be used in the prediction of Geometry course grades obtained by freshmen in the 1985-86 school year.

Sophomores 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. Using the Health composite in the equations resulted in statistically significant intercept differences for the gender group members. With an R^2 change of .024 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction system for these sophomores. Using this composite, sophomore females would be consistently underpredicted in their Geometry grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

As in the Freshmen sample, using the Health composite resulted in no statistically significant slope of intercept differences for the three ethnic groups. Model 12 could be used in the prediction of Geometry course grade for these sophomores.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. With the Health composite as the aptitude measure, the results showed statistically significant intercept differences for the gender group members. With an R^2 change of .045 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction equation for Geometry course grade for these sophomores. Using this composite, sophomore females would be consistently underpredicted in their Geometry grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

When the model comparisons were made for ethnic group differences, using the Health composite within the equations, the results showed statistically significant slope differences between the White and Black regression lines. The R^2 change for

the Model 10 and Model 11 comparison was approximately .015 ($p \leq .01$), with Model 10 being the best prediction equation for this sample's Geometry grade. Thus, the change in the Geometry grade per unit change in the ASVAB Health composite was significantly different for these White and Black sophomores.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. With the Health composite as the aptitude measure, the results showed statistically significant intercept differences for the gender group members. With an R^2 change of .041 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction equation for Geometry course grade for these sophomores. Using this composite, sophomore females would be consistently underpredicted in their Geometry grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

As in the Freshmen sample, using the Health composite resulted in no statistically significant slope of intercept differences for the three ethnic groups. Model 12 could be used in the prediction of Geometry course grade for these sophomores.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. With the Health composite as the aptitude measure, the results showed no statistically significant slope or intercept differences for the gender group members. Thus, Model 9 could be used in the prediction of Geometry course grades obtained by juniors during the 1985-86 school year.

When the model comparisons were made for ethnic group differences using the Health composite, the results showed statistically significant slope differences for the gender group members. With an R^2 change of .043 ($p \leq .01$) for the Model 10 vs Model 11 comparison, Model 10 would be the best prediction equation for Geometry course grade for these juniors. The change in the Geometry grade per unit change in the ASVAB Health composite was significantly different for these White and Nonwhite juniors.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. In this sample, the Health composite equations resulted in no statistically

significant slope or intercept differences for the gender group or ethnic group members. Model 9 or 12 could be used in the prediction of Geometry course grade for these seniors.

Calculus

Juniors 1985-86. This was the only Calculus sample which possessed more than 50 cases, and only gender group differences were tested. The Health composite, as the predictor variable, resulted in no statistically significant slope or intercept differences for the gender group members. Model 9 could be used in the prediction of Calculus course grade for these individuals.

General Science

Freshmen 1984-85. Using the Health high school composite with this sample, the results showed no statistically significant differences between the Model 2 vs Model 4 comparison. Model 4 included the unit vector, the Health composite score, and the sex by ethnicity two-way interaction predictor variables, with ethnicity membership being defined as White, Black and Hispanic. With Model 4 as the best prediction equation for this sample's General Science grade, no differential validity was evidenced for the ethnicity by Health score two-way interaction variables or the sex by Health score two-way interaction variables.

Freshmen 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. Using the Health composite as the aptitude predictor variable resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. Model 9 or 12, which contained the unit vector and the Health composite score, could be used in the prediction of General Science course grades obtained by freshmen in 1985-86.

Sophomores 1984-85. In this 1984-85 sample, using the Health high school composite score as the aptitude predictor variable, the results showed statistically significant intercept differences for the gender group members. These tests resulted in an R^2 change of .051 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, sophomore females would be consistently underpredicted in their General Science grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the ethnic group members, which in this sample were defined as White and Nonwhite. Thus, Model 12, which contained only the unit vector and the Health composite score in the prediction equation, could be used in the prediction of General Science course grade for these sophomores during this school year.

<u>Sophomores 1985-86</u>. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. The results showed statistically significant intercept differences for the gender group members. These tests resulted in an R^2 change of .035 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, sophomore females would be consistently underpredicted in their General Science grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Using the Health composite as the aptitude predictor variable resulted in no statistically significant slope or intercept differences for the ethnic group members. Model 12, which contained the unit vector and the Health composite score, could be used in the prediction of General Science course grades obtained by sophomores in 1985-86.

<u>Juniors 1984-85</u>. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. Using the Health composite within the prediction equation resulted in no statistically significant slope or intercept differences between the male and female regression lines. Again, Model 9 could be used in the prediction of General Science course grades obtained by juniors in this school year.

When the model comparisons were made for ethnic group differences, using the Health composite, the results showed statistically significant intercept differences between the White and Black regression lines. The R^2 change for the Model 11 and Model 12 comparison was approximately .053 ($p \leq .01$), with Model 11 being the best prediction equation for this sample's General Science grade. Thus, using this composite, White sophomores would be consistently underpredicted in their General Science grades if the common regression line were used, while Black sophomores would be consistently overpredicted if a common regression line were used.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Using the Health composite, the results showed statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .027 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's General Science grade. Thus, using this composite, sophomore females would be consistently underpredicted in their General Science grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

..is Health composite prediction equation resulted in no statistically significant slope or intercept differences for the ethnic group members. Thus, Model 12 could be used in the prediction of General Science course grades obtained by juniors in 1985-86.

Seniors 1984-85. This sample tested only for gender group differences. Using the Health composite equation resulted in no statistically significant slope or intercept differences for the gender groups. Thus, Model 9, which contained the unit vector and the ASVAB Math composite, could be used in the prediction of General Science course grade for these seniors.

Biology I - II

Freshmen 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Using the Health composite within the prediction equation resulted in statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .030 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Biology grade. Thus, using this composite, freshmen females would be consistently underpredicted in their Biology grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

This Health composite equation also resulted in no statistically significant slope or intercept differences for the ethnic group members. Again, Model 12 could be used in the prediction of Biology course grades obtained by freshmen in 1984-85.

Freshmen 1985-86. The use of this composite resulted in statistically significant intercept differences in the prediction equations for the two freshmen gender groups, with an R^2 change of .043 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the Health composite as the predictor variable, freshmen females would be consistently underpredicted in their Biology grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score, the results showed no statistically significant slope or intercept differences for White and Black freshmen, which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the Health composite score in the prediction equation, could be used in the prediction of Biology course grade for these freshmen.

Sophomores 1984-85. The use of this composite with this sample also resulted in statistically significant intercept differences in the prediction equations for the two freshmen gender groups, with an R^2 change of .018 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the Health composite as the predictor variable, sophomore females would be consistently underpredicted in their Biology grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the Health composite as the predictor composite, the results showed statistically significant intercept differences in the prediction equations for the White, Black and Hispanic ethnic groups, with an R^2 change of .017 ($p \leq .001$) for the Model 11 vs Model 12 comparison. Therefore, Model 11 would be the best prediction equation for this sample. Using the Health composite as the predictor variable, Black and Hispanic sophomores would be consistently underpredicted in their Biology grades if the common regression line were used, while White sophomores would be consistently overpredicted if a common regression line were used.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. These tests resulted statistically significant intercept differences between the gender group members and an R^2 change of .069 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, sophomore females would be consistently underpredicted

in their Biology grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the three ethnic groups. Thus, Model 12, which contained only the unit vector and the Health composite score in the prediction equation, could be used in the prediction of Biology course grade for these sophomores during this school year.

<u>Juniors 1984-85</u>. The use of this composite resulted in statistically significant intercept differences in the prediction equations for the two junior gender groups, with an R^2 change of .048 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the Health composite as the predictor variable, junior females would be consistently underpredicted in their Biology grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score, the results showed no statistically significant slope or intercept differences for White and Nonwhite juniors, which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the Health composite score in the prediction equation, could be used in the prediction of Biology course grade for these juniors.

<u>Juniors 1985-86</u>. This sample tested only for gender group differences. Using the Health composite as the predictor variable resulted in statistically significant intercept differences for the gender groups. With an R^2 change of .068 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction equation of Biology course grade for these juniors. Using the Health composite as the predictor variable, junior females would be consistently underpredicted in their Biology grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

<u>Seniors 1984-85</u>. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. The use of this Health composite in the equations resulted in statistically significant intercept differences for the gender members. With an R^2 change of .050 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction equations for these seniors. Using this composite, senior females would be consistently

underpredicted in their Biology grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

When the tests or ethnic group differences were conducted using the Health composite as the predictor composite, the results showed statistically significant intercept differences in the prediction equations for the White and Black ethnic groups, with an R^2 change of .039 ($p \leq .01$) for the Model 11 vs Model 12 comparison. Therefore, Model 11 would be the best prediction equation for this sample. Using the Health composite as the predictor variable, White seniors would be consistently underpredicted in their Biology grades if the common regression line were used, while Black seniors would be consistently overpredicted if a common regression line were used.

Chemistry I - II

Freshmen 1985-86. This sample tested only for gender group differences. Using the Health composite in the equations, the results showed statistically significant intercept differences for the gender groups. With an R^2 change of .046 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction equation of Chemistry course grade for these freshmen. Using the Health composite as the predictor variable, freshmen females would be consistently underpredicted in their Chemistry grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

Sophomores 1984-85. This sample also tested only for gender group differences. Again, with the Health composite in the equations, the results showed statistically significant intercept differences for the gender groups. With an R^2 change of .040 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 could be used in the prediction of Chemistry course grades obtained by these sophomores. Sophomore females would be consistently underpredicted in their Chemistry grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Sophomores 1985-86. This sample tested only for gender group differences. Using the Health composite as the predictor variable, the results indicated statistically significant intercept differences for the gender groups. With an R^2 change of .059 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction system of Chemistry course grade for these sophomores. Using this composite, sophomore females would be consistently underpredicted in their Chemistry grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The use of this Health composite in the equations resulted in statistically significant intercept differences for the gender and two ethnic group members. With R^2 changes of .072 and .016 ($p \leq .01$) for the Model 8 vs Model 9 and the Model 11 vs Model 12 comparisons, Models 8 and 11 would be the best prediction equations for these juniors. Using this composite, junior females would be consistently underpredicted in their Chemistry grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used. Conversely, if a common regression line using the Health composite as the aptitude measure were used in the prediction of Chemistry course grade, White juniors would be consistently underpredicted on this criterion while Nonwhite juniors would be consistently overpredicted.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The use of this composite resulted in statistically significant intercept differences in the prediction equations for the two junior gender groups, with an R^2 change of .081 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the Health composite as the predictor variable, junior females would be consistently underpredicted in their Chemistry grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score, the results again showed no statistically significant slope or intercept differences for White and Nonwhite juniors, which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the Health composite score in the prediction equation, could be used in the prediction of Chemistry course grade for these juniors.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Using the Health composite, the results showed no statistically significant slope or intercept differences for the gender or White and Nonwhite ethnic group members. Model 9 or 12 could be used in the prediction of Chemistry course grades obtained by seniors during this school year.

Physics I - II

Juniors 1985-86. This sample tested only for gender group differences. The use of this composite resulted in statistically significant intercept differences in the prediction equations for the two junior gender groups, with an R^2 change of .051 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the Health composite as the predictor variable, junior females would be consistently underpredicted in their Physics grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Seniors 1984-85. This sample tested only for gender group differences. The Health composite equations again resulted in statistically significant intercept differences for the gender groups. An R^2 change of .071 ($p \leq .01$) for the Model 8 vs Model 9 comparison was evidenced; therefore, Model 8 would be the best prediction equation for this sample. Using the Health composite as the predictor variable, senior females would be consistently underpredicted in their Physics grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

Government and Civics

Freshmen 1984-85. This sample tested only for gender group differences. The Health composite prediction equations resulted in statistically significant intercept differences for the gender groups. Thus, with an R^2 change of .020 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best predictor for this group's Government course grade. Freshmen females would be consistently underpredicted in their Government grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

Sophomore 1984-85. This sample also tested for gender group differences. Using the Health composite as the predictor variable, the results showed statistically significant intercept differences for the gender groups. An R^2 change of .045 ($p \leq .01$) for the Model 8 vs Model 9 comparison was evidenced; therefore, Model 8 would be the best prediction equation for this sample. Using the Health composite as the predictor variable, sophomore females would be consistently underpredicted in their Government grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Hispanic ethnic group differences were studied by not

including the gender variables in the equations. The use of this Health composite in the equations resulted in statistically significant intercept differences for the gender and two ethnic group members. With R^2 changes of .040 and .022 ($p \leq .01$) for the Model 8 vs Model 9 and the Model 11 vs Model 12 comparisons, Models 8 and 11 would be the best prediction equations for these sophomores. Using this composite, sophomore females would be consistently underpredicted in their Government grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used. Conversely, if a common regression line using the Health composite as the aptitude measure were used in the prediction of Government course grade, White sophomores would be consistently underpredicted on this criterion while Hispanic sophomores would be consistently overpredicted.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. However, the use of this Health composite in the equations resulted in statistically significant intercept differences for only the gender subgroup. With R^2 change of .039 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction equation for these juniors. Using this composite, junior females would be consistently underpredicted in their Government grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score, the results showed no statistically significant slope or intercept differences for White and Nonwhite juniors, which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the Health composite score in the prediction equation, could be used in the prediction of Government course grade for these juniors.

Juniors 1985-86. This sample, using the Health high school composite score as the aptitude predictor variable, resulted in statistically significant intercept differences for the gender group members. With an R^2 change of .049 ($p \leq .001$) for the Model 8 vs Model 9 comparison, Model 8 was the best prediction equation for this sample. Using this composite, junior females would be consistently underpredicted in their Government grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score, the results showed no statistically significant slope or intercept differences for White and Black juniors, which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only

the unit vector and the Health composite score in the prediction equation, could be used in the prediction of Government course grade for these juniors.

Seniors 1984-85. Similar to some of the previous samples, using the Health composite score as the aptitude predictor variable, resulted in statistically significant intercept differences for the gender group members. With R^2 change of .024 ($p \leq .001$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction equation for these seniors. Using this composite, senior females would be consistently underpredicted in their Government grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

When ethnic group differences were investigated using this composite, the results showed no statistically significant slope or intercept differences for the White and Black ethnic group members. Again, Model 12, which contained only the unit vector and the Health composite score in the prediction equation, could be used in the prediction of Government course grades for these seniors.

History

Freshmen 1984-85. The use of the ASVAB Health composite as the aptitude predictor variable showed statistically significant intercept differences in the prediction equations for the two freshmen gender groups and resulted in an R^2 change of .050 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, freshmen females would be consistently underpredicted in their History grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

The use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White, Black and Hispanic ethnic group members. Thus, Model 12, which contained only the unit vector and the Health composite score in the prediction equation, could be used in the prediction of History course grades obtained by freshmen during this school year.

Freshmen 1985-86. This sample, using the Health high school composite score as the aptitude predictor variable, resulted in statistically significant intercept differences in the prediction equations for the two freshmen gender groups and resulted in an R^2 change of .021 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, freshmen females would be consistently underpredicted in their History

grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

The use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Black ethnic group members. Thus, Model 12, which contained only the unit vector and the Health composite score in the prediction equation, could be used in the prediction of History course grades obtained by freshmen during this school year.

Sophomores 1984-85. Using the Health high school composite score as the aptitude predictor variable, the results showed statistically significant intercept differences in the prediction equations for the two sophomore gender groups and resulted in an R^2 change of .034 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, sophomore females would be consistently underpredicted in their History grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Again, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Black ethnic group members. Thus, Model 12, which contained only the unit vector and the Health composite score in the prediction equation, could be used in the prediction of History course grades obtained by sophomores during this school year.

Sophomores 1985-86. The use of this composite resulted in statistically significant intercept differences in the prediction equations for the gender groups, with an R^2 change of .032 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the Health composite as the predictor variable, sophomore females would be consistently underpredicted in their History grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Statistically significant intercept differences also resulted between the White, Black and Hispanic ethnic subgroups. With an R^2 change of .009 ($p \leq .001$) for the Model 11 vs Model 12 comparison, Model 11 would be the best prediction system. Thus, if a common regression line using the Health composite as the aptitude measure were used in the prediction of History course grade, White and Hispanic sophomores would be consistently underpredicted on this criterion while Black sophomores would be consistently overpredicted.

Juniors 1984-85. Like the 1985-86 freshmen sample, this sample, using the Health high school composite score as the aptitude predictor variable, resulted in statistically significant intercept differences in the prediction equations for the two junior gender groups and resulted in an R^2 change of .054 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, junior females would be consistently underpredicted in their History grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Again, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Black ethnic group members. Thus, Model 12, which contained only the unit vector and the Health composite score in the prediction equation, could be used in the prediction of History course grades obtained by juniors during this school year.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. Using the Health high school composite score as the aptitude predictor variable, results showed statistically significant intercept differences in the prediction equations for the two junior gender groups and resulted in an R^2 change of .055 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, junior females would be consistently underpredicted in their History grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Again, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Black ethnic group members. Thus, Model 12, which contained only the unit vector and the Health composite score in the prediction equation, could be used in the prediction of History course grades obtained by juniors during this school year.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. The use of the Health composite in the prediction equations resulted in statistically significant intercept differences for the gender group members. An R^2 change of .019 ($p \leq .01$) for the Model 8 vs Model 9 comparison was evidenced. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the

predictor variable, senior females would be consistently underpredicted in their History grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

Statistically significant intercept differences also resulted between the White and Black ethnic subgroups. With an R^2 change of .025 ($p \leq .01$) for the Model 11 vs Model 12 comparison, Model 11 would be the best prediction system. Thus, if a common regression line using the Health composite as the aptitude measure were used in the prediction of History course grade, White seniors would be consistently underpredicted on this criterion while Black seniors would be consistently overpredicted.

Foreign Language

Freshmen 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The use of the ASVAB Health composite as the aptitude predictor variable showed statistically significant intercept differences in the prediction equations for the two freshmen gender groups. The results showed an R^2 change of .073 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the aptitude predictor variable, freshmen females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

The use of this ASVAB composite score in the equations also resulted in statistically significant intercept differences in the prediction equations for the White, Black and Hispanic ethnic groups and resulted in an R^2 change of .016 ($p \leq .01$) for the Model 11 vs Model 12 comparison. Therefore, Model 11 would be the best prediction equation for this sample. Using this composite as the aptitude predictor variable, White and Hispanic freshmen would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while Black freshmen would be consistently overpredicted if a common regression line were used.

Freshmen 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. When the model comparisons were made for gender group differences, using the Health composite within the equations, the results showed

statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .059 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Foreign Language grade. Thus, freshmen females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

When the model comparisons were made for ethnic group differences, using the Health composite within the equations, the results showed no statistically significant slope or intercept differences between the White, Black and Hispanic regression lines. Model 12, which contained only the unit vector and the Health composite score in the prediction equation, could be used in the prediction of Foreign Language course grades obtained by freshmen during this school year.

<u>Sophomores 1984-85</u>. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The Health composite predictor equations showed statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .105 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Foreign Language grade. Thus, using this composite as the aptitude measure, sophomore females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

When the model comparisons were made for ethnic group differences, the use of this Health composite in the prediction equations resulted in no statistically significant slope or intercept differences for the ethnic group members. Therefore, Model 12, which contained the unit vector and the Health composite, could be used in the prediction of these sophomores' Foreign Language course grade.

<u>Sophomores 1985-86</u>. Using the ASVAB Health composite as the aptitude predictor in the equations showed statistically significant intercept differences in the prediction equations for the two sophomore gender groups and resulted in an R^2 change of .074 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite sophomore females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

The use of this ASVAB composite score in the prediction equations resulted in no statistically significant slope or intercept differences for the White and Nonwhite ethnic group members. Again, Model 12 could be used in the prediction of Foreign Language course grades obtained by sophomores during this school year.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The use of the Health composite as a predictor measure showed statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .100 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Foreign Language grade. Thus, using this predictor composite, junior females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

When the model comparisons were made for ethnic group differences, the Health predictor composite also resulted in statistically significant intercept differences for the ethnic group members. The R^2 change for the Model 11 vs Model 12 comparison was .020 ($p \leq .01$); therefore, Model 11 would be the best prediction equation for these juniors' Foreign Language course grade. Using this composite White and Hispanic juniors would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while Black juniors would be consistently overpredicted if a common regression line were used.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The Health prediction equations resulted in statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .071 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Foreign Language grade. Thus, using this predictor composite, junior females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

When testing for ethnic group differences, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Hispanic ethnic group members. Thus, Model 12, which contained

only the unit vector and the Health composite score in the prediction equation, could be used in the prediction of Foreign Language course grades obtained by juniors during this school year.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Hispanic ethnic group differences were studied by not including the gender variables in the equations. Again, the Health prediction equations resulted in statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .031 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Foreign Language grade. Thus, using this predictor composite, senior females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

The Health composite prediction equations resulted in no statistically significant slope or intercept differences for the two ethnic groups. Model 12 could be used in the prediction of Foreign Language course grade for these individuals.

Secretary and Office Education

Juniors 1985-86. This sample tested only for White and Nonwhite ethnic group differences. Using the Health composite as the aptitude predictor variable, the results showed no statistically significant slope or intercept differences for the ethnic groups. Thus, Model 12, which contained the unit vector and the ASVAB Health composite, could be used in the prediction of this course grade for these juniors.

Seniors 1984-85. This sample also tested only for White and Nonwhite ethnic group differences. Again, using the Health composite prediction equations the results showed no statistically significant slope or intercept differences for the ethnic groups. Thus, Model 12, which contained the unit vector and the ASVAB Health composite, could be used in the prediction of Secretary and Office course grades obtained by these seniors.

Typing and Word Processing

Freshmen 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The Health prediction equations resulted in statistically significant intercept differences between the male and female regression

lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .020 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Typing grade. Thus, using this predictor composite, freshmen females would be consistently underpredicted in their Typing grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

When testing for ethnic group differences, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White, Black and Hispanic ethnic group members. Thus, Model 12, which contained only the unit vector and the Health composite score in the prediction equation, could be used in the prediction of Typing course grades obtained by freshmen during this school year.

Freshmen 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The Health prediction equations resulted in statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .043 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Typing grade. Thus, using this predictor composite, freshmen females would be consistently underpredicted in their Typing grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

When testing for ethnic group differences, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Hispanic ethnic group members. Thus, Model 12, which contained only the unit vector and the Health composite score in the prediction equation, could be used in the prediction of Typing course grades obtained by freshmen during this school year.

Sophomores 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The results again showed statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .059 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Typing grade. Thus, using this predictor composite, sophomore females would be consistently underpredicted in their Typing grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Again, when testing for ethnic group differences, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White, Black and Hispanic ethnic group members. Thus, Model 12, which contained only the unit vector and the Health composite score in the prediction equation, could be used in the prediction of Typing course grades obtained by sophomores during this school year.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. The Health prediction equations showed statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .022 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Typing grade. Using this predictor composite, sophomore females would be consistently underpredicted in their Typing grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Using the Health composite as the aptitude predictor variable, the results showed no statistically significant slope or intercept differences for the ethnic group members. Again, Model 12 could be used in the prediction of Typing course grade for these sophomores.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. As in the sophomore 1984-85 sample, the results showed statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .093 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Typing grade. Thus, using this predictor composite, junior females would be consistently underpredicted in their Typing grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Again, when testing for ethnic group differences, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Black ethnic group members. Thus, Model 12, which contained only the unit vector and the Health composite score in the prediction equation, could be used in the prediction of Typing course grades obtained by juniors during this school year.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. As in the previous sample, the results showed statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .060 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Typing grade. Thus, using this predictor composite, junior females would be consistently underpredicted in their Typing grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Again, when testing for ethnic group differences, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Nonwhite ethnic group members. Thus, Model 12, which contained only the unit vector and the Health composite score in the prediction equation, could be used in the prediction of Typing course grades obtained by juniors during this school year.

Seniors 1984-85. This sample tested only for gender group differences. The Health composite equations resulted in statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .040 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Typing grade. Thus, using this predictor composite, senior females would be consistently underpredicted in their Typing grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

Accounting and Bookkeeping

Sophomores 1985-86. This sample tested only for gender group differences. The use of the ASVAB Health composite as the predictor variable showed statistically significant intercept differences in the prediction equations for the two sophomore gender groups and resulted in an R^2 change of .068 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, sophomore females would be consistently underpredicted in their Accounting grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Juniors 1984-85. This sample also tested only for gender group differences. Again, using the Health composite prediction equations, the results showed statistically significant intercept differences in the prediction equations for the two junior gender groups and resulted in an R^2 change of .129 ($p \leq .01$) for the Model

8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, junior females would be consistently underpredicted in their Accounting grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Juniors 1985-86. This sample tested for gender group differences. As in the previous sample, using the Health composite prediction equations, the results showed statistically significant intercept differences in the prediction equations for the two junior gender groups and resulted in an R^2 change of .051 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, junior females would be consistently underpredicted in their Accounting grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Seniors 1984-85. Like the junior samples, this sample tested only for gender group differences. Using the Health composite prediction equations, the results showed statistically significant intercept differences in the prediction equations for the two gender groups and resulted in an R^2 change of .057 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, senior females would be consistently underpredicted in their Accounting grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

Home Economics

Freshmen 1984-85. At first using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. The prediction equations with the ASVAB Health composite showed statistically significant intercept differences in the prediction equations for the two freshmen gender groups and resulted in an R^2 change of .058 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, freshmen females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB Health composite, the results showed statistically significant intercept differences in the prediction equations for the two ethnic groups. An R^2 change of .071 ($p \leq .01$) for the Model 11 vs Model 12 comparison was evidenced;

and Model 11 could be used in the prediction of Home Economics course grade for these freshmen. Using this predictor composite, freshmen Whites would be consistently underpredicted in their Home Economics grades if the common regression line were used, while freshmen Blacks would be consistently overpredicted if a common regression line were used.

Freshmen 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Using the Health composite as a predictor variable, the results showed statistically significant intercept differences for these two freshmen gender groups and resulted in an R^2 change of .079 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the aptitude measure, freshmen females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB Health composite, the results showed no statistically significant slope or intercept differences in the prediction equations for the two ethnic groups. Model 12 could be used in the prediction of Home Economics course grade for these freshmen.

Sophomore 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The prediction equations with the ASVAB Health composite showed statistically significant intercept differences in the prediction equations for the two gender groups and resulted in an R^2 change of .078 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, sophomore females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB Health composite, the results showed statistically significant intercept differences in the prediction equations for the two ethnic groups. An R^2 change of .033 ($p \leq .01$) for the Model 11 vs Model 12 comparison was evidenced; and Model 11 could be used in the prediction of Home Economics course grade for these sophomores. Using this predictor

composite, White sophomores would be consistently underpredicted in their Home Economics grades if the common regression line were used, while Nonwhite sophomores would be consistently overpredicted if a common regression line were used.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The use of the Health composite prediction equations resulted in statistically significant intercept differences for the gender group members and resulted in an R^2 change of .077 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, sophomore females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB Health composite, the results showed no statistically significant slope or intercept differences in the prediction equations for the two ethnic groups. Model 12 could be used in the prediction of Home Economics course grade for these sophomores.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The use of the Health composite prediction equations resulted in statistically significant intercept differences for the gender group members and resulted in an R^2 change of .045 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, junior females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB Health composite, the results showed no statistically significant slope or intercept differences in the prediction equations for the two ethnic groups. Model 12 could be used in the prediction of Home Economics course grade for these juniors.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Again, this

sample, using the Health composite equations, resulted in statistically significant intercept differences for the gender group members. An R^2 change of .139 ($p \leq .01$) for the Model 8 vs Model 9 comparison was evidenced; therefore, Model 8 would be the best prediction equation for this sample. Using this predictor composite junior females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB Health composite, the results indicated no statistically significant slope or intercept differences in the prediction equations for the two ethnic groups. Model 12 could be used in the prediction of Home Economics course grade for these juniors.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. As in the junior 1985-86 sample, the Health composite equations resulted in statistically significant intercept differences for the gender group members. An R^2 change of .058 ($p \leq .01$) was obtained for the Model 8 vs Model 9 comparison; therefore, Model 8 would be the best prediction equation for this sample. Using this composite senior females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

The tests for ethnic group differences were conducted using the ASVAB Health composite, and the results showed no statistically significant slope or intercept differences in the prediction equations for the two ethnic groups. Model 12 could be used in the prediction of Home Economics course grade for these seniors.

Computer Programming

Sophomores 1985-86. This sample tested only for gender group differences. Using the Health composite as a predictor variable, the results showed statistically significant intercept differences for the gender group members. An R^2 change of .104 ($p \leq .01$) was obtained for the Model 8 vs Model 9 comparison; therefore, Model 8 would be the best prediction equation for this sample. Using this composite sophomore females would be consistently underpredicted in their Computer Programming grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Juniors 1984-85. Like the sophomore sample, this sample tested for gender group differences. Again, using the Health composite as a predictor variable, the results showed statistically significant intercept differences for the gender group members. An R^2 change of .052 ($p \leq .01$) was obtained for the Model 8 vs Model 9 comparison; therefore, Model 8 would be the best prediction equation for this sample. Using this composite junior females would be consistently underpredicted in their Computer Programming grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Juniors 1985-86. The model comparisons tested only for gender group differences. Using the ASVAB Health predictor composite, the results showed statistically significant intercept differences in the prediction equations for the two junior gender groups and resulted in an R^2 change of .150 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite junior females would be consistently underpredicted in their Computer Programming grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Seniors 1984-85. As in the previous Computer Programming samples, this sample tested for gender group differences. The Health composite prediction equations resulted in no statistically significant slope or intercept differences for the gender groups. Thus, Model 9, which contained the unit vector and the ASVAB Health composite, could be used in the prediction of Computer Programming course grades obtained by seniors for this year.

Table 11 Summary of Equity Findings for Prediction of High School Course Grades by Health, Social & Technical Composite

Course		Sex	Ethnicity	Sex*Ethnicity
English I-IV				
Fresh	84-85	NS	NS	I
Fresh	85-86	I	E	NS
Soph	84-85	S	E	NS
Soph	85-86	S	I	NS
Jr	84-85	S	E	NS
Jr	85-86	S	E	NS
Sr	84-85	I	E	NS
General Math				
Fresh	84-85	I	E	NS
Fresh	85-86	E	E	NS
Soph	84-85	E	E	NS
Soph	85-86	I	E	NS
Jr	84-85	E	F	NS
Jr	85-86	I	E	NS
Sr	84-85	E	E	NS

Note. NS = Not significant; I = Intercept differences; S = Slope differences; E = Equitable test, no significant slope or intercept differences found; NT = Not tested due to small sample sizes.

Table 11. (Continued)

Course		Sex	Ethnicity	Sex*Ethnicity
Algebra				
Fresh	84-85	I	E	NS
Fresh	85-86	I	E	NS
Soph	84-85	I	E	NS
Soph	8[illegible]5	I	E	NS
Jr	84-85	I	E	NS
Jr	85-86	E	E	NS
Sr	84-85	I	E	NS
Geometry				
Fresh	85-86	I	E	NS
Soph	84-85	I	E	NS
Soph	85-86	I	S	NS
Jr	84-85	I	E	NS
Jr	85-86	E	S	NS
Sr	84-85	E	E	NS
Calculus				
Jr	85-86	E	NT	NS
General Science				
Fresh	84-85	NS	NS	I
Fresh	85-86	E	E	NS
Soph	84-85	I	E	NS
Soph	85-86	I	E	NS
Jr	84-85	E	I	NS
Jr	85-86	I	E	NS
Sr	84-85	E	NT	NS
Biology				
Fresh	84-85	I	E	NS
Fresh	85-86	I	E	NS
Soph	84-85	I	I	NS
Soph	85-86	I	E	NS
Jr	84-85	I	E	NS
Jr	85-86	I	NT	NS
Sr	84-85	I	I	NS
Chemistry				
Fresh	85-86	I	NT	NS
Soph	84-85	I	NT	NS
Soph	85-86	I	NT	NS
Jr	84-85	I	I	NS
Jr	85-86	I	E	NS
Sr	84-85	E	E	NS
Physics				
Jr	85-86	I	NT	NS
Sr	84-85	I	NT	NS
Government				
Fresh	84-85	I	NT	NS
Soph	84-85	I	NT	NS
Soph	85-86	I	I	NS
Jr	84-85	I	E	NS
Jr	85-86	I	E	NS
Sr	84-85	I	E	NS

Note. NS = Not significant; I = Intercept differences; S = Slope differences; E = Equitable test, no significant slope or intercept differences found; NT = Not tested due to small sample sizes.

Table 11. (Concluded)

Course	Sex	Ethnicity	Sex*Ethnicity
History			
Fresh 84-85	I	E	NS
Fresh 85-86	I	E	NS
Soph 84-85	I	E	NS
Soph 85-86	I	I	NS
Jr 84-85	I	E	NS
Jr 85-86	I	E	NS
Sr 84-85	I	I	NS
Foreign Language			
Fresh 84-85	I	I	NS
Fresh 85-86	I	E	NS
Soph 84-85	I	E	NS
Soph 85-86	I	E	NS
Jr 84-85	I	I	NS
Jr 85-86	I	E	NS
Sr 84-85	I	E	NS
Secretary & Ofc			
Jr 85-86	NT	E	NS
Sr 84-85	NT	E	NS
Typing			
Fresh 84-85	I	E	NS
Fresh 85-86	I	E	NS
Soph 84-85	I	E	NS
Soph 85-86	I	E	NS
Jr 84-85	I	E	NS
Jr 85-86	I	E	NS
Sr 84-85	I	NT	NS
Accounting			
Soph 85-86	I	NT	NS
Jr 84-85	I	NT	NS
Jr 85-86	I	NT	NS
Sr 84-85	I	NT	NS
Home Economics			
Fresh 84-85	I	I	NS
Fresh 85-86	I	E	NS
Soph 84-85	I	I	NS
Soph 85-86	I	E	NS
Jr 84-85	I	E	NS
Jr 85-86	I	E	NS
Sr 84-85	I	E	NS
Computer Program			
Soph 85-86	I	NT	NS
Jr 84-85	I	NT	NS
Jr 85-86	I	NT	NS
Sr 84-85	E	NT	NS

Note. NS = Not significant; I = Intercept differences; S = Slope differences; E = Equitable test, no significant slope or intercept differences found; NT = Not tested due to small sample sizes.

AFQT Selector Composite

English I - IV

Freshmen 1984-85. Using the AFQT selector composite with this sample, the results showed no statistically significant differences between the Model 2 vs Model 4 comparison. Model 4 included the unit vector, the AFQT composite score, and the sex by ethnicity two-way interaction predictor variables, with ethnicity membership being defined as White, Black and Hispanic. With Model 4 as the best prediction equation for this sample's English grade, no differential validity was evidenced for the ethnicity by AFQT score two-way interaction variables or the sex by AFQT score two-way interaction variables.

Freshmen 1985-86. This composite showed statistically significant intercept differences in the prediction equations for the two freshmen gender groups and resulted in an R^2 change of .033 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the AFQT composite as the predictor variable freshmen females would be consistently underpredicted in their English grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

Using the AFQT composite score as the aptitude measure resulted in no statistically significant slope or intercept differences for White, Black and Hispanic freshmen which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the AFQT composite score in the prediction equation, could be used in the prediction of English course grade for these freshmen.

Sophomores 1984-85. When the model comparisons were made for gender group differences, using the AFQT selector composite resulted in statistically significant slope differences between the male and female regression lines. The R^2 change for the Model 7 and Model 8 comparison was approximately .007 ($p \leq .001$), with Model 7 being the best prediction equation for this groups English grade. Thus, the change in the English grade per unit change in the ASVAB AFQT composite was significantly different for this year's sophomore males and females.

Using the AFQT composite score as the aptitude measure resulted in no statistically significant slope or intercept differences for White, Black and Hispanic sophomores which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the AFQT composite score in the prediction equation, could be used in the prediction of English course grade for these sophomores.

Sophomores 1985-86. The model comparisons for gender group differences using the AFQT selector composite showed statistically significant slope differences between the male and female regression lines, with Model 7 as the prediction equation to be used for this sample. The R^2 change for the Model 7 and Model 8 comparison was approximately .007 ($p \leq .001$). Thus, the change in the English grade per unit change in the ASVAB AFQT composite was significantly different for these sophomore males and females.

Using the AFQT composite score as the aptitude measure resulted in no statistically significant slope or intercept differences for White, Black and Hispanic sophomores which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the AFQT composite score in the prediction equation, could be used in the prediction of English course grade for these sophomores.

Juniors 1984-85. When the model comparisons were made for gender group differences, using the AFQT selector composite resulted in statistically significant slope differences between the male and female regression lines. The R^2 change for the Model 7 and Model 8 comparison was approximately .007 ($p \leq .001$), with Model 7 being the best prediction equation for this group's English grade. Thus, the change in the English grade per unit change in the ASVAB AFQT composite was significantly different for these junior males and females.

Using this ASVAB composite score as the aptitude predictor variable resulted in no statistically significant slope or intercept differences for White, Black and Hispanic juniors. Thus, Model 12, which contained only the unit vector and the AFQT composite score in the prediction equation, could be used in the prediction of English course grade for these individuals.

Juniors 1985-86. As in the 1984-85 school year, using the AFQT selector composite in the equations showed statistically significant slope differences between the male and female regression lines. The R^2 change for the Model 7 and Model 8 comparison was approximately .007 ($p \leq .001$), with Model 7 being the best prediction equation for English grade. Thus, the change in the English grade per unit change in the ASVAB AFQT composite was also significantly different for these junior males and females.

Again, using the AFQT composite score resulted in no statistically significant slope or intercept differences for the ethnic groups, with this sample including only White and Black individuals. Thus, Model 12, which contained only the unit vector and the AFQT composite score in the prediction equation, could be used in the prediction of English course grade for these juniors.

Seniors 1984-85. The ASVAB AFQT composite as the aptitude predictor showed statistically significant intercept differences in the prediction equations for the two senior gender groups and resulted in an R^2 change of .026 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the AFQT composite as the aptitude predictor variable senior females would be consistently underpredicted in their English grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the White, Black and Hispanic ethnic group members. Model 12 could be used in the prediction of English course grades obtained by seniors during this school year.

General Math

Freshmen 1984-85. This sample, using the AFQT ASVAB composite score as the aptitude predictor variable, resulted in no statistically significant slope or intercept differences for the gender group members or the White, Black and Hispanic ethnic group members. Thus, Models 9 or 12, which contain only the unit vector and the AFQT composite score in the prediction equation, could be used in the prediction of General Math course grades obtained by freshmen during this school year.

Freshmen 1985-86. As in the 1984-85 sample, the results showed no statistically significant slope or intercept differences for the gender group members or the ethnic group members, which in this sample were White and Black. Again, Models 9 or 12 containing only the unit vector and the AFQT composite score in the prediction equation, could be used in the prediction of General Math course grade for these freshmen.

Sophomores 1984-85. This sample also resulted in no statistically significant slope or intercept differences for the gender group members or the White, Black and Hispanic ethnic group members. Models 9 or 12, which contained only the unit vector and the AFQT composite score in the prediction equation, could be used in the prediction of General Math course grades obtained during this year by sophomores.

Sophomores 1985-86. This sample, using the AFQT composite in the equations, showed statistically significant intercept differences between the male and female gender subgroups. With an R^2 change of .035 ($p \leq .001$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction system. Thus, if a common regression line using the AFQT composite were used in the prediction of General Math course grade, female sophomores would be consistently underpredicted on the criterion while male sophomores would be consistently overpredicted.

The results also showed no statistically significant slope or intercept differences between the White and Black ethnic group members regression lines. Thus, Model 12, containing the unit vector and the AFQT composite score, could be used in predicting General Math course grade for these individuals.

Juniors 1984-85. In this 1984-85 sample, using the AFQT selector composite score as the aptitude predictor variable, the results showed no statistically significant slope or intercept differences for the gender group members or the White and Black ethnic group members. Thus, Models 9 or 12, which contained only the unit vector and the AFQT composite score in the prediction equation, could be used in the prediction of General Math course grades obtained in 1984-85 by juniors.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. The results showed no statistically significant slope or intercept differences for the gender group or ethnic group members. Again, Model 9 or 12 could be used in the prediction of General Math course grades obtained in 1985-36 by juniors.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. The results showed no statistically significant slope or intercept differences for the gender group or ethnic group members. Again, Model 9 or 12 could be used in the prediction of General Math course grades obtained in 1984-85 by seniors.

Algebra

Freshmen 1984-85. Using the ASVAB AFQT composite as the predictor variable, the results showed statistically significant intercept differences in the prediction equations for the two gender groups with an R^2 change of .037 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, freshmen females would be consistently underpredicted in their Algebra grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the ethnic group members, which in this sample were defined as White and Nonwhite. Thus, Model 12, which contained only the

unit vector and the AFQT composite score in the prediction equation, could be used in the prediction of Algebra course grade for freshmen during this school year.

Freshmen 1985-86. With the AFQT composite as the aptitude measure the results showed statistically significant intercept differences in the prediction equations for the two gender groups. These comparisons resulted in R^2 change of .038 ($p \leq .001$) for the Model 8 vs Model 9 tests. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, freshmen females would be consistently underpredicted in their Algebra grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the ethnic group members, which in this sample were defined as White and Nonwhite. Thus, Model 12, which contained only the unit vector and the AFQT composite score in the prediction equation, could be used in the prediction of Algebra course grade for freshmen during this school year.

Sophomores 1984-85. In this 1984-85 sample, using the AFQT selector composite score as the aptitude predictor variable, the results showed statistically significant intercept differences for the gender group members. These tests resulted in an R^2 change of .022 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, sophomore females would be consistently underpredicted in their Algebra grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the ethnic group members, which in this sample were defined as White and Nonwhite. Thus, Model 12, which contained only the unit vector and the AFQT composite score in the prediction equation, could be used in the prediction of Algebra course grade for sophomores during this school year.

Sophomores 1985-86. This sample resulted in no statistically significant slope or intercept differences for the gender group or the White and Nonwhite ethnic group members. Thus, Models 9 or 12, which contained only the unit vector and the AFQT composite score in the prediction equations, could be used in the prediction of Algebra course grade for these sophomores.

Juniors 1984-85. In this 1984-85 sample, using the AFQT selector composite score as the aptitude predictor variable, the results showed statistically significant intercept differences for the gender group members. These tests resulted in an R^2 change of .027 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, junior females would be consistently underpredicted in their Algebra grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the ethnic group members, which in this sample were defined as White and Black. Thus, Model 12, which contained only the unit vector and the AFQT composite score in the prediction equation, could be used in the prediction of Algebra course grade for juniors during this school year.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Using the AFQT composite as the aptitude predictor resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. Again, Model 9 or 12 could be used in the prediction of Algebra course grade for these juniors.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Using the AFQT composite in the equations resulted in statistically significant intercept differences for the gender group members. With an R^2 change of .035 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction system for these seniors. Using this composite, senior females would be consistently underpredicted in their Algebra grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the ethnic group members, which in this sample were defined as

White and Nonwhite. Thus, Model 12 could be used in the prediction of Algebra course grades obtained by seniors in the 1984-85 school year.

Geometry

Freshmen 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. Again, using the AFQT composite in the prediction equations resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. Thus, Model 9 or 12 could be used in the prediction of Geometry course grades obtained by freshmen in the 1985-86 school year.

Sophomores 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. As in the Freshmen sample, using the AFQT composite resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. Model 9 or 12 could be used in the prediction of Geometry course grade for these sophomores.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. With the AFQT composite as the aptitude measure, the results showed statistically significant intercept differences for the gender group members. With an R^2 change of .021 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction equation for Geometry course grade for these sophomores. Using this composite, sophomore females would be consistently underpredicted in their Geometry grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

When the model comparisons were made for ethnic group differences, using the AFQT composite within the equations, the results showed statistically significant slope differences between the White and Black regression lines. The R^2 change for the Model 10 and Model 11 comparison was approximately .025 ($p \leq .01$), with Model 10 being the best prediction equation for this sample's Geometry grade. Thus, the change in the Geometry grade per unit change in the ASVAB AFQT composite was significantly different for these White and Black sophomores.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. With the AFQT composite as the aptitude measure, the results showed statistically significant intercept differences for the gender group members. With an R^2 change of .019 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction equation for Geometry course grade for these juniors. Using this composite, junior females would be consistently underpredicted in their Geometry grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Using the AFQT composite resulted in no statistically significant slope or intercept differences for the two ethnic groups. Again, Model 12 could be used in the prediction of Geometry course grade for these juniors.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. As in some of the other Geometry samples, using the AFQT composite in the prediction equations resulted in no statistically significant slope or intercept differences for the gender group members. Model 9 could be used in the prediction of Geometry course grade for these juniors.

When the model comparisons were made for ethnic group differences, using the AFQT composite, the results showed statistically significant slope differences between the White and Nonwhite regression lines. The R^2 change for the Model 10 and Model 11 comparison was approximately .059 ($p \leq .01$), with Model 10 being the best prediction equation for this sample's Geometry grade. Thus, the change in the Geometry grade per unit change in the ASVAB AFQT composite was significantly different for these White and Nonwhite juniors.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. In this sample, the AFQT composite equations also resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. Again, Model 9 or 12 could be used in the prediction of Geometry course grade for these seniors.

Calculus

Juniors 1985-86. This was the only Calculus sample which possessed more than 50 cases, and only gender group differences were tested. The AFQT composite, as the predictor variable, resulted in no statistically significant slope or intercept differences for the gender group members. Model 9 could be used in the prediction of Calculus course grade for these individuals.

General Science

Freshmen 1984-85. Using the AFQT selector composite with this sample, the results showed no statistically significant differences between the Model 2 vs Model 4 comparison. Model 4 included the unit vector, the AFQT composite score, and the sex by ethnicity two-way interaction predictor variables, with ethnicity membership being defined as White, Black and Hispanic. With Model 4 as the best prediction equation for this sample's General Science grade, no differential validity was evidenced for the ethnicity by AFQT score two-way interaction variables or the sex by AFQT score two-way interaction variables.

Freshmen 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. Using the AFQT composite as the aptitude predictor variable resulted in no statistically significant slope or intercept differences for the gender groups. Model 9, which contained the unit vector and the AFQT composite score, could be used in the prediction of General Science course grades obtained by freshmen in 1985-86.

When the model comparisons were made for ethnic group differences, using the AFQT composite, the results showed statistically significant slope differences between the White and Black regression lines. The R^2 change for the Model 10 and Model 11 comparison was approximately .032 ($p \leq .01$), with Model 10 being the best prediction equation for this sample's General Science grade. Thus, the change in the General Science grade per unit change in the ASVAB AFQT composite was significantly different for these White and Black freshmen.

Sophomores 1984-85. In this 1984-85 sample, using the AFQT selector composite score as the aptitude predictor variable, the results showed statistically significant intercept differences for the gender group members. These tests resulted in an R^2 change of .033 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, sophomore females would be consistently underpredicted in their General Science grades if

the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the ethnic group members, which in this sample were defined as White and Nonwhite. Thus, Model 12, which contained only the unit vector and the AFQT composite score in the prediction equation, could be used in the prediction of General Science course grade for these sophomores during this school year.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. Again, using the AFQT composite as the aptitude aptitude measure resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. Model 9 or 12 could be used in the prediction of General Science course grade for these sophomores.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. Using the AFQT composite within the prediction equation resulted in no statistically significant slope or intercept differences for the gender group members. Again, Model 9 could be used in the prediction of General Science course grade for these juniors.

With the AFQT composite as the aptitude measure, the results showed statistically significant intercept differences for the two ethnic subgroups. With an R^2 change of .055 ($p \leq .01$) for the Model 11 vs Model 12 comparison, Model 11 would be the best prediction equation for General Science course grade for these juniors. Using this composite, White juniors would be consistently underpredicted in their General Science grades if the common regression line were used, while Black juniors would be consistently overpredicted if a common regression line were used.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. This AFQT composite prediction equation resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. As in some of the previous samples, Model 9 or 12 could be used in the prediction of General Science course grades obtained by juniors in 1985-86.

Seniors 1984-85. This sample tested only for gender group differences. Using the AFQT composite equation resulted in no statistically significant slope or intercept differences for the gender groups. Thus, Model 9, which contained the unit vector and the ASVAB AFQT composite, could be used in the prediction of General Science course grade for these seniors.

Biology I - II

Freshmen 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. This AFQT composite equation also resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. Again, Model 9 or 12 could be used in the prediction of Biology course grades obtained by freshmen in 1985-86.

Freshmen 1985-86. The use of this composite resulted in statistically significant intercept differences in the prediction equations for the two freshmen gender groups, with an R^2 change of .026 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the AFQT composite as the predictor variable, freshmen females would be consistently underpredicted in their Biology grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score, the results showed no statistically significant slope or intercept differences for White and Black freshmen, which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the AFQT composite score in the prediction equation, could be used in the prediction of Biology course grade for these freshmen.

Sophomores 1984-85. Using the AFQT selector composite with this sample, the results showed statistically significant differences between the Model 2 vs Model 4 and the Model 2 vs Model 5 comparisons. However, the Model 2 vs Model 6 comparsion showed that these two models were not significantly different. Model 6 included the unit vector, the AFQT score by sex two-way interaction predictor variables, and the sex by ethnicity two-way interaction predictor variable. With Model 6 as the best prediction equation for this sample's Biology grade, no differential validity was evidenced for the ethnicity by AFQT score two-way interaction variables, with ethnicity being defined as White, Black and Hispanic group membership.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. These tests resulted statistically significant intercept differences between the gender group members and an R^2 change of .048 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, sophomore females would be consistently underpredicted in their Biology grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the three ethnic groups. Thus, Model 12, which contained only the unit vector and the AFQT composite score in the prediction equation, could be used in the prediction of Biology course grade for these sophomores during this school year.

Juniors 1984-85. The use of this composite resulted in statistically significant intercept differences in the prediction equations for the two junior gender groups, with an R^2 change of .030 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the AFQT composite as the predictor variable, junior females would be consistently underpredicted in their Biology grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score, the results showed no statistically significant slope or intercept differences for White and Nonwhite juniors, which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the AFQT composite score in the prediction equation, could be used in the prediction of Biology course grade for these juniors.

Juniors 1985-86. This sample tested only for gender group differences. Using the AFQT composite as the predictor variable resulted in statistically significant intercept differences for the gender groups. With an R^2 change of .032 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction equation of Biology course grade for these juniors. Using this composite, junior females would be consistently underpredicted in their Biology grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White

and Black ethnic group differences were studied by not including the gender variables in the equations. The use of this AFQT composite in the equations resulted in statistically significant intercept differences for the gender and two ethnic group members. With R^2 changes of .028 and .035 ($p \leq .01$) for the Model 8 vs Model 9 and the Model 11 vs Model 12 comparisons, Models 8 and 11 would be the best prediction equations for these seniors. Using this composite, senior females would be consistently underpredicted in their Biology grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used. Conversely, if a common regression line using the AFQT composite as the aptitude measure were used in the prediction of Biology course grade, White seniors would be consistently underpredicted on this criterion while Black seniors would be consistently overpredicted.

Chemistry I - II

Freshmen 1985-86. This sample tested only for gender group differences. Using the AFQT composite in the equations, the results showed no statistically significant slope or intercept differences for the gender groups. Thus, Model 9, which contained the unit vector and the ASVAB AFQT composite, could be used in the prediction of Chemistry course grades obtained by freshmen in this year.

Sophomores 1984-85. This sample also tested only for gender group differences. Again, with the AFQT composite in the equations, the results showed no statistically significant slope or intercept differences for the gender groups. Model 9 could be used in the prediction of Chemistry course grades obtained by these sophomores.

Sophomores 1985-86. This sample tested only for gender group differences. Using the AFQT composite as the predictor variable, the results indicated statistically significant intercept differences for the gender groups. With an R^2 change of .043 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction system of Chemistry course grade for these sophomores. Using this composite, sophomore females would be consistently underpredicted in their Chemistry grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The use of this AFQT composite in the equations resulted in statistically significant intercept differences for the gender and two ethnic group members. With R^2 changes of .045 and .029 ($p \leq .01$) for the

Model 8 vs Model 9 and the Model 11 vs Model 12 comparisons, Models 8 and 11 would be the best prediction equations for these juniors. Using this composite, junior females would be consistently underpredicted in their Chemistry grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used. Conversely, if a common regression line using the AFQT composite as the aptitude measure were used in the prediction of Chemistry course grade, White juniors would be consistently underpredicted on this criterion while Nonwhite juniors would be consistently overpredicted.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The use of this composite resulted in statistically significant intercept differences in the prediction equations for the two junior gender groups, with an R^2 change of .058 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the AFQT composite as the predictor variable, junior females would be consistently underpredicted in their Chemistry grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score, the results showed no statistically significant slope or intercept differences for White and Nonwhite juniors, which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the AFQT composite score in the prediction equation, could be used in the prediction of Biology course grade for these juniors.

Seniors 1984-85. As in the previous samples using the AFQT composite, the results showed no statistically significant slope or intercept differences for the gender group members. Model 9 could be used in the prediction of Chemistry course grades obtained by seniors during this school year.

When the model comparisons were made for ethnic group differences, using the AFQT composite, the results showed statistically significant slope differences between the White and Nonwhite regression lines. The R^2 change for the Model 10 and Model 11 comparison was approximately .039 ($p \leq .01$), with Model 10 being the best prediction equation for this sample's Chemistry grade. Thus, the change in the Chemistry grade per unit change in the ASVAB AFQT composite was significantly different for these White and Nonwhite seniors.

Physics I - II

Juniors 1985-86. This sample tested only for gender group differences. The use of this composite resulted in statistically significant intercept differences in the prediction equations for the two junior gender groups, with an R^2 change of .038 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the AFQT composite as the predictor variable, junior females would be consistently underpredicted in their Physics grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Seniors 1984-85. This sample tested only for gender group differences. The AFQT composite equations again resulted in statistically significant intercept differences for the gender groups. An R^2 change of .034 ($p \leq .01$) for the Model 8 vs Model 9 comparison was evidenced; therefore, Model 8 would be the best prediction equation for this sample. Using the AFQT composite as the predictor variable, senior females would be consistently underpredicted in their Physics grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

Government and Civics

Freshmen 1984-85. This sample tested only for gender group differences. The AFQT composite prediction equations resulted in no statistically significant slope or intercept differences for the gender groups. Thus, Model 9, which contained the unit vector and the ASVAB AFQT composite, could be used in the prediction of Government course grades obtained by freshmen for this year.

Sophomore 1984-85. This sample also tested for gender group differences. Again, using the AFQT composite as the predictor variable, the results showed no statistically significant slope or intercept differences for the gender groups. Model 9 could be used in the prediction of Government course grade for these sophomores.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The use of this AFQT composite in the equations resulted in statistically significant intercept differences for the gender and two ethnic group members. With R^2 changes of .028 and .015 ($p \leq .01$) for the Model 8 vs Model 9 and the Model 11 vs Model 12 comparisons, Models 8 and 11 would be the best prediction equations for these sophomores. Using this composite, sophomore females would be consistently underpredicted in their Government grades if the

common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used. Conversely, if a common regression line using the AFQT composite as the aptitude measure were used in the prediction of Government course grade, White sophomores would be consistently underpredicted on this criterion while Hispanic sophomores would be consistently overpredicted.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. However, the use of this AFQT composite in the equations resulted in statistically significant intercept differences for only the gender subgroup. With R^2 changes of .016 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction equation for these juniors. Using this composite, junior females would be consistently underpredicted in their Government grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score, the results showed no statistically significant slope or intercept differences for White and Nonwhite juniors, which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the AFQT composite score in the prediction equation, could be used in the prediction of Government course grade for these juniors.

Juniors 1985-86. This sample, using the AFQT selector composite score as the aptitude predictor variable, resulted in statistically significant intercept differences for the gender group members. With an R^2 change of .026 ($p \leq .001$) for the Model 8 vs Model 9 comparison, Model 8 was the best prediction equation for this sample. Using this composite, junior females would be consistently underpredicted in their Government grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score, the results showed no statistically significant slope or intercept differences for White and Black juniors, which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the AFQT composite score in the prediction equation, could be used in the prediction of Government course grade for these juniors.

Seniors 1984-85. Similar to the previous samples, this sample, using the AFQT composite score as the aptitude predictor variable, resulted in no statistically significant slope or intercept differences for the gender group members or the White and Black ethnic group members. Again, Models 9 or 12, which

contained only the unit vector and the AFQT composite score in the prediction equation, could be used in the prediction of Government course grades for these seniors.

History

Freshmen 1984-85. The use of the ASVAB AFQT composite as the aptitude predictor variable showed statistically significant intercept differences in the prediction equations for the two freshmen gender groups and resulted in an R^2 change of .030 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, freshmen females would be consistently underpredicted in their History grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

The use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White, Black and Hispanic ethnic group members. Thus, Model 12, which contained only the unit vector and the AFQT composite score in the prediction equation, could be used in the prediction of History course grades obtained by freshmen during this school year.

Freshmen 1985-86. This sample, using the AFQT selector composite score as the aptitude predictor variable, resulted in statistically significant intercept differences in the prediction equations for the two freshmen gender groups and resulted in an R^2 change of .007 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, freshmen females would be consistently underpredicted in their History grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

The use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Black ethnic group members. Thus, Model 12, which contained only the unit vector and the AFQT composite score in the prediction equation, could be used in the prediction of History course grades obtained by freshmen during this school year.

Sophomores 1984-85. Using the AFQT selector composite score as the aptitude predictor variable, the results showed statistically significant intercept differences in the prediction equations for the two sophomore gender groups and resulted in an R^2 change of .016 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, sophomore females would be consistently underpredicted in their

History grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

The use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Black ethnic group members. Thus, Model 12, which contained only the unit vector and the AFQT composite score in the prediction equation, could be used in the prediction of History course grades obtained by sophomores during this school year.

<u>Sophomores 1985-86</u>. The use of this composite resulted in statistically significant intercept differences in the prediction equations for the gender groups, with an R^2 change of .035 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the AFQT composite as the predictor variable, sophomore females would be consistently underpredicted in their History grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score, the results showed statistically significant slope differences for White, Black and Hispanic sophomores, which were the ethnic groups defined in the prediction equations. The R^2 change for the Model 10 and Model 11 comparison was approximately .009 ($p \leq .001$), with Model 10 being the best prediction equation for this sample's History grade. Thus, the change in History grade per unit change in the AFQT composite was significantly different for White, Black and Hispanic sophomores.

<u>Juniors 1984-85</u>. Like the 1985-86 freshmen sample, this sample, using the AFQT selector composite score as the aptitude predictor variable, resulted in statistically significant intercept differences in the prediction equations for the two junior gender groups and resulted in an R^2 change of .028 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, junior females would be consistently underpredicted in their History grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Again, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Black ethnic group members. Thus, Model 12, which contained only the unit vector and the AFQT composite score in the prediction equation, could be used in the prediction of History course grades obtained by juniors during this school year.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. Using the AFQT composite score as the aptitude predictor variable, the results showed statistically significant slope differences in the prediction equations for the two junior gender groups and resulted in an R^2 change of .013 ($p \leq .01$) for the Model 7 vs Model 8 comparison. Therefore, Model 7 would be the best prediction equation for this sample Thus, the change in the History grade per unit change in the AFQT composite was significantly different for junior males and females.

Using the AFQT composite predictor variable resulted in no statistically significant slope or intercept differences for the ethnic group members. Again, Model 12 could be used in the prediction of History course grade for these juniors.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. Again, the use of the AFQT composite in the prediction equations resulted in no statistically significant slope or intercept differences for the gender group members. Model 9 could be used in the prediction of History course grade for these seniors.

Statistically significant intercept differences resulted between the White and Black ethnic subgroups. With an R^2 change of .023 ($p \leq .01$) for the Model 11 vs Model 12 comparison, Model 11 would be the best prediction system. Thus, if a common regression line using the AFQT composite as the aptitude measure were used in the prediction of History course grade, White seniors would be consistently underpredicted on this criterion while Black seniors would be consistently overpredicted.

Foreign Language

Freshmen 1984-85. The use of the ASVAB AFQT composite as the aptitude predictor variable showed statistically significant intercept differences in the prediction equations for the two freshmen gender groups and resulted in an R^2 change of .052 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the aptitude predictor variable, freshmen females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

The use of this ASVAB composite score in the equations also resulted in statistically significant intercept differences in the prediction equations for the White, Black and Hispanic ethnic groups and resulted in an R^2 change of .025 ($p \leq .01$) for the Model 11 vs Model 12 comparison. Therefore, Model 11 would be the best prediction equation for this sample. Using this composite as the aptitude p dictor variable, White and Hispanic freshmen would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while Black freshmen would be consistently overpredicted if a common regression line were used.

Freshmen 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. Using the AFQT composite in the prediction equations the results showed statistically significant intercept differences in the prediction equations for the two freshmen gender groups and resulted in an R^2 change of .045 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the aptitude predictor variable, freshmen females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

The use of this ASVAB composite score in the equations also resulted in statistically significant intercept differences in the prediction equations for the White, Black and Hispanic ethnic groups and resulted in an R^2 change of .011 ($p \leq .01$) for the Model 11 vs Model 12 comparison. Therefore, Model 11 would be the best prediction equation for this sample. Using this composite as the aptitude predictor variable, White and Hispanic freshmen would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while Black freshmen would be consistently overpredicted if a common regression line were used.

Sophomores 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The AFQT prediction equations showed statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .081 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Foreign Language grade. Thus, using this composite as the aptitude measure, sophomore females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

When the model comparisons were made for ethnic group differences, the use of this AFQT composite in the prediction equations also resulted in statistically significant intercept differences for the ethnic group members. With an R^2 change of .015 ($p \leq .01$) for the Model 11 vs Model 12 comparison, Model 11 would be the best prediction system for these sophomores' Foreign Language course grade. Again, using this composite as the aptitude measure, White and Hispanic sophomores would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while Black sophomores would be consistently overpredicted if a common regression line were used.

Sophomores 1985-86. Using the ASVAB AFQT composite as the aptitude predictor in the equations showed statistically significant intercept differences in the prediction equations for the two sophomore gender groups and resulted in an R^2 change of .059 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite sophomore females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

When the model comparisons were made for ethnic group differences using of this AFQT composite in the prediction equations, the results also showed statistically significant intercept differences between the White and Nonwhite regression lines. The R^2 change for the Model 11 and Model 12 comparison was approximately .019 ($p \leq .01$), with Model 11 being the best prediction equation for this sample's Foreign Language grade. White sophomores would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while Nonwhite sophomores would be consistently overpredicted if a common regression line were used.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The use of the AFQT composite as a predictor measure showed statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .076 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Foreign Language grade. Thus, using this predictor composite, junior females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

When the model comparisons were made for ethnic group differences, the General predictor composite also resulted in statistically significant intercept differences for the ethnic group members. The R^2 change for the Model 11 vs Model 12 comparison was .024 ($p \leq .01$); therefore, Model 11 would be the best prediction equation for these juniors' Foreign Language course grade. Using this composite White and Hispanic juniors would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while Black juniors would be consistently overpredicted if a common regression line were used.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The General prediction equations resulted in statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .046 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Foreign Language grade. Thus, using this predictor composite, junior females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

When testing for ethnic group differences, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Hispanic ethnic group members. Thus, Model 12, which contained only the unit vector and the AFQT composite score in the prediction equation, could be used in the prediction of Foreign Language course grades obtained by juniors during this school year.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The AFQT composite prediction equations resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. Again, Model 9 or 12 could be used in the prediction of Foreign Language course grade for these individuals.

Secretary and Office Education

Juniors 1985-86. This sample tested only for White and Nonwhite ethnic group differences. Using the AFQT composite as the aptitude predictor variable, the results showed no statistically significant slope or intercept differences for the

gender groups. Thus, Model 12, which contained the unit vector and the ASVAB AFQT composite, could be used in the prediction of this course grade for these juniors.

Seniors 1984-85. This sample tested for White and Nonwhite ethnic group differences. Again, using the AFQT composite prediction equations the results showed no statistically significant slope or intercept differences for the gender groups. Thus, Model 12, which contained the unit vector and the ASVAB AFQT composite, could be used in the prediction of Secretary and Office course grades obtained by these seniors.

Typing and Word Processing

Freshmen 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The AFQT composite prediction equations resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. Model 9 or 12 could be used in the prediction of Typing course grade for these freshmen.

Freshmen 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The AFQT prediction equations resulted in statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .032 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Typing grade. Thus, using this predictor composite, freshmen females would be consistently underpredicted in their Typing grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

When testing for ethnic group differences, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Hispanic ethnic group members. Thus, Model 12, which contained only the unit vector and the AFQT composite score in the prediction equation, could be used in the prediction of Typing course grades obtained by freshmen during this school year.

Sophomores 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The results again showed statistically significant intercept

differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .039 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Typing grade. Thus, using this predictor composite, sophomore females would be consistently underpredicted in their Typing grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Again, when testing for ethnic group differences, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White, Black and Hispanic ethnic group members. Thus, Model 12, which contained only the unit vector and the AFQT composite score in the prediction equation, could be used in the prediction of Typing course grades obtained by sophomores during this school year.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. Using the AFQT composite as the aptitude predictor variable, the results showed no statistically significant slope or intercept differences for the gender group or ethnic group members. Again, Model 9 or 12 could be used in the prediction of Typing course grade for these sophomores.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. As in the sophomore 1984-85 sample, the results showed statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .063 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Typing grade. Thus, using this predictor composite, junior females would be consistently underpredicted in their Typing grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Again, when testing for ethnic group differences, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Black ethnic group members. Thus, Model 12, which contained only the unit vector and the AFQT composite score in the prediction equation, could be used in the prediction of Typing course grades obtained by juniors during this school year.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. As in the previous sample, the results showed statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .040 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Typing grade. Thus, using this predictor composite, junior females would be consistently underpredicted in their Typing grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Again, when testing for ethnic group differences, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Nonwhite ethnic group members. Thus, Model 12, which contained only the unit vector and the AFQT composite score in the prediction equation, could be used in the prediction of Typing course grades obtained by juniors during this school year.

Seniors 1984-85. This sample tested only for gender group differences. The AFQT composite equations resulted in statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .029 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Typing grade. Thus, using this predictor composite, senior females would be consistently underpredicted in their Typing grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

Accounting and Bookkeeping

Sophomores 1985-86. This sample tested only for gender group differences. The use of the ASVAB AFQT composite as the predictor variable showed statistically significant intercept differences in the prediction equations for the two sophomore gender groups and resulted in an R^2 change of .049 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, sophomore females would be consistently underpredicted in their Accounting grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Juniors 1984-85. This sample tested for gender group differences. Again, using the AFQT composite prediction equations, the results showed statistically significant intercept differences in the prediction equations for the two junior gender groups and resulted in an R^2 change of .087 ($p \leq .01$) for the Model

8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, junior females would be consistently underpredicted in their Accounting grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Juniors 1985-86. This sample tested for gender group differences. As in the previous sample, using the AFQT composite prediction equations, the results showed statistically significant intercept differences in the prediction equations for the two junior gender groups and resulted in an R^2 change of .034 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, junior females would be consistently underpredicted in their Accounting grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Seniors 1984-85. Like the junior samples, this sample tested for gender group differences. Using the AFQT composite prediction equations, the results showed statistically significant intercept differences in the prediction equations for the two gender groups and resulted in an R^2 change of .034 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, senior females would be consistently underpredicted in their Accounting grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

Home Economics

Freshmen 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. The prediction equations with the ASVAB AFQT composite showed statistically significant intercept differences in the prediction equations for the two freshmen gender groups and resulted in an R^2 change of .042 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, freshmen females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB AFQT composite, the results showed statistically significant intercept differences in the prediction equations for the two ethnic groups. An R^2 change of .069 ($p \leq .01$) for the Model 11 vs Model 12 comparison was evidenced; and Model 11 could

be used in the prediction of Home Economics course grade for these freshmen. Using this predictor composite, freshmen Whites would be consistently underpredicted in their Home Economics grades if the common regression line were used, while freshmen Blacks would be consistently overpredicted if a common regression line were used.

Freshmen 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Using the AFQT composite as a predictor variable, the results showed statistically significant intercept differences for these two freshmen gender groups and resulted in an R^2 change of .058 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the aptitude measure, freshmen females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB AFQT composite, the results showed no statistically significant slope or intercept differences in the prediction equations for the two ethnic groups. Model 12 could be used in the prediction of Home Economics course grade for these freshmen.

Sophomore 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The prediction equations with the ASVAB AFQT composite showed statistically significant intercept differences in the prediction equations for the two gender groups and resulted in an R^2 change of .056 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, sophomore females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB AFQT composite, the results showed statistically significant intercept differences in the prediction equations for the two ethnic groups. An R^2 change of .031 ($p \leq .01$) for the Model 11 vs Model 12 comparison was evidenced; and Model 11 could be used in the prediction of Home Economics course grade for these sophomores. Using this predictor composite, White sophomores would be consistently underpredicted in their Home

Economics grades if the common regression line were used, while Nonwhite sophomores would be consistently overpredicted if a common regression line were used.

<u>Sophomores 1985-86</u>. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The use of the AFQT composite prediction equations resulted in statistically significant intercept differences for the gender group members. The ASVAB AFQT composite showed statistically significant intercept differences in the prediction equations for the two sophomore gender groups and resulted in an R^2 change of .058 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, sophomore females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB AFQT composite, the results showed no statistically significant slope or intercept differences in the prediction equations for the two ethnic groups. Model 12 could be used in the prediction of Home Economics course grade for these sophomores.

<u>Juniors 1984-85</u>. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The use of the AFQT composite prediction equations resulted in statistically significant intercept differences for the gender group members. The ASVAB AFQT composite showed statistically significant intercept differences in the prediction equations for the two junior gender groups and resulted in an R^2 change of .027 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, junior females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB AFQT composite, the results showed no statistically significant slope or intercept differences in the prediction equations for the two ethnic groups. Model 12 could be used in the prediction of Home Economics course grade for these juniors.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Again, this sample, using the AFQT composite equations, resulted in statistically significant intercept differences for the gender group members. An R^2 change of .108 ($p \leq .01$) for the Model 8 vs Model 9 comparison was evidenced; therefore, Model 8 would be the best prediction equation for this sample. Using this predictor composite junior females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB AFQT composite, the results indicated no statistically significant slope or intercept differences in the prediction equations for the two ethnic groups. Model 12 could be used in the prediction of Home Economics course grade for these juniors.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. As in the junior 1985-86 sample, the AFQT composite equations resulted in statistically significant intercept differences for the gender group members. An R^2 change of .039 ($p \leq .01$) was obtained for the Model 8 vs Model 9 comparison; therefore, Model 8 would be the best prediction equation for this sample. Using this composite senior females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

The tests for ethnic group differences were conducted using the ASVAB AFQT composite, and the results showed no statistically significant slope or intercept differences in the prediction equations for the two ethnic groups. Model 12 could be used in the prediction of Home Economics course grade for these seniors.

Computer Programming

Sophomores 1985-86. This sample tested only for gender group differences. Using the AFQT composite as a predictor variable, the results showed statistically significant intercept differences for the gender group members. An R^2 change of .070 ($p \leq .01$) was obtained for the Model 8 vs Model 9 comparison; therefore, Model 8 would be the best prediction equation for this sample. Using this composite sophomore females would be

consistently underpredicted in their Computer Programming grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Juniors 1984-85. Like the sophomore sample, this sample tested for gender group differences. Again, the AFQT composite equations resulted in no statistically significant slope or intercept differences for the gender groups. Thus, Model 9, which contained the unit vector and the ASVAB AFQT composite, could be used in the prediction of Computer Programming course grades obtained by juniors for this year.

Juniors 1985-86. The model comparisons tested only for gender group differences. Using the AFQT predictor composite, the results showed statistically significant intercept differences in the prediction equations for the two junior gender groups and resulted in an R^2 change of .094 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite junior females would be consistently underpredicted in their Computer Programming grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Seniors 1984-85. As in the previous Computer Programming samples, this sample also tested for gender group differences. The AFQT composite prediction equations resulted in no statistically significant slope or intercept differences for the gender groups. Thus, Model 9, which contained the unit vector and the ASVAB AFQT composite, could be used in the prediction of Computer Programming course grades obtained by seniors for this year.

Table 12. Summary of Equity Findings for Prediction of High School Course Grades by AFQT Selector Composite

Course		Sex	Ethnicity	Sex*Ethnicity
English I-IV				
Fresh	84-85	NS	NS	I
Fresh	85-86	I	E	NS
Soph	84-85	S	E	NS
Soph	85-86	S	E	NS
Jr	84-85	S	E	NS
Jr	85-86	S	E	NS
Sr	84-85	I	E	NS

Note. NS = Not significant; I = Intercept differences; S = Slope differences; E = Equitable test, no significant slope or intercept differences found; NT = Not tested due to small sample sizes.

Table 12. (Continued)

Course		Sex	Ethnicity	Sex*Ethnicity
General Math				
Fresh	84-85	E	E	NS
Fresh	85-86	E	E	NS
Soph	84-85	E	E	NS
Soph	85-86	I	E	NS
Jr	84-85	E	E	NS
Jr	85-86	I	E	NS
Sr	84-85	E	E	NS
Algebra				
Fresh	84-85	I	E	NS
Fresh	85-86	I	E	NS
Soph	84-85	I	E	NS
Soph	85-86	E	E	NS
Jr	84-85	I	E	NS
Jr	85-86	E	E	NS
Sr	84-85	I	E	NS
Geometry				
Fresh	85-86	E	E	NS
Soph	84-85	E	E	NS
Soph	85-86	I	S	NS
Jr	84-85	I	E	NS
Jr	85-86	E	S	NS
Sr	84-85	E	E	NS
Calculus				
Jr	85-86	E	NT	NS
General Science				
Fresh	84-85	NS	NS	I
Fresh	85-86	E	S	NS
Soph	84-85	I	E	NS
Soph	85-86	E	E	NS
Jr	84-85	E	I	NS
Jr	85-86	E	E	NS
Sr	84-85	E	NT	NS
Biology				
Fresh	84-85	E	E	NS
Fresh	85-86	I	E	NS
Soph	84-85	S	NS	I
Soph	85-86	I	E	NS
Jr	84-85	I	E	NS
Jr	85-86	I	NT	NS
Sr	84-85	I	I	NS
Chemistry				
Fresh	85-86	E	NT	NS
Soph	84-85	E	NT	NS
Soph	85-86	I	NT	NS
Jr	84-85	I	I	NS
Jr	85-86	I	E	NS
Sr	84-85	E	S	NS

Note. NS = Not significant; I = Intercept differences; S = Slope differences; E = Equitable test, no significant slope or intercept differences found; NT = Not tested due to small sample sizes.

Table 12. (Concluded)

Course		Sex	Ethnicity	Sex*Ethnicity
Physics				
Jr	85-86	I	NT	NS
Sr	84-85	I	NT	NS
Government				
Fresh	84-85	E	NT	NS
Soph	84-85	E	NT	NS
Soph	85-86	I	I	NS
Jr	84-85	I	E	NS
Jr	85-86	I	E	NS
Sr	84-85	E	E	NS
History				
Fresh	84-85	I	E	NS
Fresh	85-86	I	E	NS
Soph	84-85	I	E	NS
Soph	85-86	I	S	NS
Jr	84-85	I	E	NS
Jr	85-86	S	E	NS
Sr	84-85	E	I	NS
Foreign Language				
Fresh	84-85	I	I	NS
Fresh	85-86	I	I	NS
Soph	84-85	I	I	NS
Soph	85-86	I	I	NS
Jr	84-85	I	I	NS
Jr	85-86	I	E	NS
Sr	84-85	E	E	NS
Secretary & Ofc				
Jr	85-86	NT	E	NS
Sr	84-85	NT	E	NS
Typing				
Fresh	84-85	E	E	NS
Fresh	85-86	I	E	NS
Soph	84-85	I	E	NS
Soph	85-86	E	E	NS
Jr	84-85	I	E	NS
Jr	85-86	I	E	NS
Sr	84-85	I	NT	NS
Accounting				
Soph	85-86	I	NT	NS
Jr	84-85	I	NT	NS
Jr	85-86	I	NT	NS
Sr	84-85	I	NT	NS
Home Economics				
Fresh	84-85	I	I	NS
Fresh	85-86	I	E	NS
Soph	84-85	I	I	NS
Soph	85-86	I	E	NS
Jr	84-85	I	E	NS
Jr	85-86	I	E	NS
Sr	84-85	I	E	NS
Computer Program				
Soph	85-86	[illegible]	NT	NS
Jr	84-85	E	NT	NS
Jr	85-86	I	NT	NS
Sr	84-85	E	NT	NS

Note. NS = Not significant; I = Intercept differences; S = Slope differences; E = Equitable test, no significant slope or intercept differences found; NT = Not tested due to small sample sizes.

Perceptual Speed Composite

English I - IV

Freshmen 1984-85. Using the Perceptual Speed composite with this sample, the results showed statistically significant differences between the Model 2 vs Model 4 comparison. However, the Model 2 vs Model 5 comparsion showed that these two models were not significantly different. Model 5 included the unit vector, the Perceptual score by ethnicity two-way interaction predictor variables, and the sex by ethnicity two-way interaction predictor variables. With Model 5 as the best prediction equation for this sample's English grade, no differential validiy for the gender by Perceptual score two-way interaction predictor variables was evidenced.

Freshmen 1985-86. Using the Perceptual Speed composite with this sample, the results again showed statistically significant differences between the Model 2 vs Model 4 comparison. However, the Model 2 vs Model 5 comparsion showed that these two models were not significantly different. Model 5 included the unit vector, the Perceptual score by ethnicity two-way interaction predictor variables, and the sex by ethnicity two-way interaction predictor variables. With Model 5 as the best prediction equation for this sample's English grade, no differential validiy for the gender by Perceptual score two-way interaction predictor variables was evidenced.

Sophomores 1984-85. When the model comparisons were made for gender group differences, using the Perceptual composite resulted in statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .015 ($p \leq .001$), with Model 8 being the best prediction equation for this group's English grade. Thus, using the Perceptual composite as the predictor variable sophomore females would be consistently underpredicted in their English grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

When the model comparisons were made for ethnic group differences using this ASVAB composite, the results showed statistically significant intercept differences among the White, Black and Hispanic regression lines. With an R^2 change of .038 ($p \leq .001$) for the Model 11 vs Model 12 comparison, Model 11 would be the best prediction equation for this sample. Using the Perceptual composite as the predictor variable White and Hispanic sophomores would be consistently underpredicted in their English grades if the common regression line were used, while Black sophomores would be consistently overpredicted if a common regression line were used.

Sophomores 1985-86. When the model comparisons were made for gender group differences, using the Perceptual composite resulted again in statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .028 ($p \leq .001$), with Model 8 being the best prediction equation for this group's English grade. Thus, using the Perceptual composite as the predictor variable sophomore females would be consistently underpredicted in their English grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Using the Perceptual composite score as the aptitude measure resulted in statistically significant intercept differences for White, Black and Hispanic sophomores, which were the ethnic groups defined in the prediction equations. The R^2 change for the Model 11 and Model 12 comparison was approximately .053 ($p \leq .001$), with Model 11 being the best prediction equation for this sample's English grade. Thus, White and Hispanic sophomores would be consistently underpredicted in their English grades if the common regression line were used, while Black sophomores would be consistently overpredicted if a common regression line were used.

Juniors 1984-85. When the model comparisons were made for gender group differences, using the Perceptual composite resulted in statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .040 ($p \leq .001$), with Model 8 being the best prediction equation for this group's English grade. Thus, using the Perceptual com osite as the predictor variable junior females would be consistently underpredicted in their English grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

When the model comparisons were made for ethnic group differences using this ASVAB composite, the results showed statistically significant intercept differences among the White, Black and Hispanic regression lines. With an R^2 change of .027 ($p \leq .001$) for the Model 11 vs Model 12 comparison, Model 11 would be the best prediction equation for this sample. Using the Perceptual composite as the predictor variable White and Hispanic juniors would be consistently underpredicted in their English grades if the common regression line were used, while Black juniors would be consistently overpredicted if a common regression line were used.

Juniors 1985-86. When the model comparisons were made for gender group differences, using the Perceptual composite resulted in statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .045 ($p \leq .001$), with Model 8 being the best prediction equation for this group's

English grade. Thus, using the Perceptual composite as the predictor variable junior females would be consistently underpredicted in their English grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

When the model comparisons were made for ethnic group differences using this ASVAB composite, the results showed statistically significant intercept differences among the White and Black regression lines. With an R^2 change of .018 ($p \leq .001$) for the Model 11 vs Model 12 comparison, Model 11 would be the best prediction equation for this sample. Using the Perceptual composite as the predictor variable White juniors would be consistently underpredicted in their English grades if the common regression line were used, while Black juniors would be consistently overpredicted if a common regression line were used.

Seniors 1984-85. When the model comparisons were made for gender group differences, using the Perceptual composite resulted in statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .014 ($p \leq .001$), with Model 8 being the best prediction equation for this group's English grade. Thus, using the Perceptual composite as the predictor variable senior females would be consistently underpredicted in their English grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

When the model comparisons were made for ethnic group differences using this ASVAB composite, the results showed statistically significant intercept differences among the White, Black and Hispanic regression lines. With an R^2 change of .025 ($p \leq .001$) for the Model 11 vs Model 12 comparison, Model 11 would be the best prediction equation for this sample. Using the Perceptual composite as the predictor variable White and Hispanic seniors would be consistently underpredicted in their English grades if the common regression line were used, while Black seniors would be consistently overpredicted if a common regression line were used.

General Math

Freshmen 1984-85. This sample, using the Perceptual composite score as the aptitude predictor variable, resulted in no statistically significant slope or intercept differences for the gender group members. Thus, Model 9, which contain only the unit vector and the Perceptual composite score in the prediction equation, could be used in the prediction of General Math course grades obtained by freshmen during this school year.

When the model comparisons were made for ethnic group differences using this composite, the results showed statistically significant intercept differences among the White, Black and Hispanic regression lines. With an R^2 change of .013 ($p \leq .001$) for the Model 11 vs Model 12 comparison, Model 11 would be the best prediction equation for this sample. Using the Perceptual composite as the predictor variable White and Hispanic freshmen would be consistently underpredicted in their General Math grades if the common regression line were used, while Black freshmen would be consistently overpredicted if a common regression line were used.

Freshmen 1985-86. For this sample, the results showed no statistically significant slope or intercept differences for the gender group members or the White and Black ethnic group members. Models 9 or 12 containing only the unit vector and the Perceptual composite score in the prediction equation, could be used in the prediction of General Math course grade for these freshmen.

Sophomores 1984-85. This sample also resulted in no statistically significant slope or intercept differences for the gender group members or the White, Black and Hispanic ethnic group members. Models 9 or 12, which contained only the unit vector and the Perceptual composite score in the prediction equation, could be used in the prediction of General Math course grades obtained during this year by sophomores.

Sophomores 1985-86. This sample,using the Perceptual composite in the equations, showed no statistically significant slope or intercept differences between the gender group members regression lines. Thus, Model 9 could be used in predicting General Math course grade for these individuals.

Using the Perceptual composite in the equations, showed statistically significant intercept differences between the White and Black ethnic subgroups. With an R^2 change of .042 ($p \leq .001$) for the Model 11 vs Model 12 comparison, Model 11 would be the best prediction system. Thus, if a common regression line using the Perceptual composite were used in the prediction of General Math course grade, White sophomores would be consistently underpredicted on the criterion while Black sophomores would be consistently overpredicted.

Juniors 1984-85. Like previous samples using the Perceptual composite, this sample also resulted in no statistically significant slope or intercept differences for the gender group members or the White and Black ethnic group members. Models 9 or 12, which contained only the unit vector and the Perceptual composite score in the prediction equation, could be used in the prediction of General Math course grades obtained during this year by juniors.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. Using the Perceptual composite score as the aptitude predictor variable, the results showed no statistically significant slope or intercept differences between the gender subgroups. Thus, Model 9, containing the unit vector and the Perceptual composite score, could be used in predicting General Math course grade for these individuals.

Using the Perceptual composite in the equations, showed statistically significant intercept differences between the White and Black ethnic subgroups. With an R^2 change of .043 ($p \leq .01$) for the Model 11 vs Model 12 comparison, Model 11 would be the best prediction system. Thus, if a common regression line using the Perceptual composite were used in the prediction of General Math course grade, White juniors would be consistently underpredicted on the criterion while Black juniors would be consistently overpredicted.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. The results showed no statistically significant slope or intercept differences for the gender group members. Again, Model 9 could be used in the prediction of General Math course grades obtained in 1984-85 by seniors.

The Perceptual composite as the aptitude predictor showed statistically significant intercept differences in the prediction equations for the two senior ethnic groups and resulted in an R^2 change of .066 ($p \leq .01$) for the Model 11 vs Model 12 comparison. Therefore, Model 11 would be the best prediction equation for this sample. Using this composite White seniors would be consistently underpredicted in their General Math grades if the common regression line were used, while Black seniors would be consistently overpredicted if a common regression line were used.

Algebra

Freshmen 1984-85. Using the ASVAB Perceptual composite as the predictor variable, the results showed statistically significant intercept differences in the prediction equations for the two gender groups with an R^2 change of .012 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, freshmen females would be consistently underpredicted in their

Algebra grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the ethnic group members, which in this sample were defined as White and Nonwhite. Thus, Model 12, which contained only the unit vector and the Perceptual composite score in the prediction equation, could be used in the prediction of Algebra course grade for freshmen during this school year.

Freshmen 1985-86. Using the Perceptual composite as the aptitude predictor variable resultsed in no statistically significant slope or intercept differences for the gender group members. Again, Model 9 could be used in the prediction of Algebra course grades obtained in 1985-86 by freshmen.

With the Perceptual composite as the aptitude measure the results showed statistically significant intercept differences in the prediction equation for the White and Nonwhite ethnic groups. These comparisons resulted in R^2 change of .049 ($p \leq .001$) for the Model 11 vs Model 12 comparison. Therefore, Model 11 would be the best prediction equations for this sample. Using this composite, White freshmen would be consistently underpredicted in their Algebra grades if the common regression line were used, while Nonwhite freshmen would be consistently overpredicted if a common regression line were used.

Sophomores 1984-85. In this 1984-85 sample, using the Perceptual composite score as the aptitude predictor variable, the results showed no statistically significant slope or intercept differences for the gender group members or the White and Nonwhite ethnic group members. Models 9 or 12, which contained only the unit vector and the Perceptual composite score in the prediction equation, could be used in the prediction of Algebra course grades obtained in 1984-85 by sophomores.

Sophomores 1985-86. Using the Perceptual composite as the aptitude predictor variable resultsed in no statistically significant slope or intercept differences for the gender group members. Again, Model 9 could be used in the prediction of Algebra course grades obtained in 1985-86 by sophomores.

With the Perceptual composite as the aptitude measure the results showed statistically significant intercept differences in the prediction equation for the White and Nonwhite ethnic groups. These comparisons resulted in R^2 change of .037 ($p \leq .001$) for the Model 11 vs Model 12 comparison. Therefore, Model 11 would be the best prediction equations for this sample. Using this composite, White sophomores would be consistently underpredicted in their Algebra grades if the common regression line were used, while Nonwhite sophomores would be consistently overpredicted if a common regression line were used.

Juniors 1984-85. In this 1984-85 sample, using the Perceptual Speed composite score as the aptitude predictor variable, the results showed no statistically significant slope or intercept differences for the gender group members or the ethnic group members, which in this sample were White and Black. Again, Models 9 or 12 could be used in the prediction of Algebra course grades obtained in 1984-85 by juniors.

Juniors 1985-86. In this sample, using the Perceptual composite score as the aptitude predictor variable, the results showed no statistically significant slope or intercept differences for the gender group members. Again, Model 9 could be used in the prediction of Algebra course grades obtained in 1985-86 by juniors.

With the Perceptual composite as the aptitude measure the results showed statistically significant intercept differences in the prediction equation for the White and Nonwhite ethnic groups. These comparisons resulted in R^2 change of .048 ($p \leq .01$) for the Model 11 vs Model 12 comparison. Therefore, Model 11 would be the best prediction equations for this sample. Using this composite, White juniors would be consistently underpredicted in their Algebra grades if the common regression line were used, while Nonwhite juniors would be consistently overpredicted if a common regression line were used.

Geometry

Freshmen 1985-86. In this sample, using the Perceptual composite score as the aptitude predictor variable, the results showed no statistically significant slope or intercept differences for the gender group members. Again, Model 9 could be used in the prediction of Geometry course grades obtained in 1985-86 by freshmen.

With the Perceptual composite as the aptitude measure the results showed statistically significant slope differences in the prediction equation for the White, Black and Hispanic ethnic groups. These comparisons resulted in R^2 change of .021 ($p \leq .01$) for the Model 10 vs Model 11 comparison. Therefore, Model 10 would be the best prediction equations for this sample. Thus, the change in the Geometry grade per unit change in the Perceptual composite was significantly different for White, Black and Hispanic freshmen.

Sophomores 1984-85. In this sample, using the Perceptual composite score as the aptitude predictor variable, the results showed no statistically significant slope or intercept differences for the gender group members. Again, Model 9 could be used in the prediction of Geometry course grades obtained in 1984-85 by sophomores.

With the Perceptual composite as the aptitude measure the results showed statistically significant intercept differences in the prediction equation for the White, Black and Hispanic ethnic groups. These comparisons resulted in R^2 change of .024 ($p \leq .01$) for the Model 11 vs Model 12 comparison. Therefore, Model 11 would be the best prediction equations for this sample. Using this composite, White and Hispanic sophomores would be consistently underpredicted in their Geometry grades if the common regression line were used, while Black sophomores would be consistently overpredicted if a common regression line were used.

General Science

Freshmen 1984-85. Using the Perceptual Speed composite with this sample, the results showed statistically significant differences between the Model 2 vs Model 4 comparison. However, the Model 2 vs Model 5 comparsion showed that these two models were not significantly different. Model 5 included the unit vector, the Perceptual score by ethnicity two-way interaction predictor variables, and the sex by ethnicity two-way interaction predictor variables. With Model 5 as the best prediction equation for this sample's General Science grade, no differential validity for the gender by Perceptual score two-way interaction predictor variables was evidenced.

Freshmen 1985-86. In this 1985-86 sample, using the Perceptual Speed composite score as the aptitude predictor variable, the results showed no statistically significant slope or intercept differences for the gender group members or the ethnic group members, which in this sample were White and Black. Again, Models 9 or 12 could be used in the prediction of General Science course grades obtained in 1985-86 by freshmen.

Sophomores 1984-85. In this 1984-85 sample, using the Perceptual Speed composite score as the aptitude predictor variable, the results also showed no statistically significant slope or intercept differences for the gender group members or the ethnic group members, which in this sample were White and Nonwhite. Again, Models 9 or 12 could be used in the prediction of General Science course grades obtained by sophomores.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. Using the Perceptual composite as the aptitude predictor variable resulted in no statistically significant slope or intercept differences for the gender group members. Model 9, which contained the unit vector and the Perceptual composite score, could be used in the prediction of General Science course grades obtained by sophomores in 1985-86.

When the model comparisons were made for ethnic group differences, using the Perceptual composite, the results showed statistically significant intercept differences between the White and Black regression lines. The R^2 change for the Model 11 and Model 12 comparison was approximately .102 ($p \leq .01$), with Model 11 being the best prediction equation for this sample's General Science grade. Thus, using this composite, White sophomores would be consistently underpredicted in their General Science grades if the common regression line were used, while Black sophomores would be consistently overpredicted if a common regression line were used.

<u>Juniors 1984-85</u>. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. Using the Perceptual composite as the aptitude predictor variable resulted in no statistically significant slope or intercept differences for the gender group members. Model 9, which contained the unit vector and the Perceptual composite score, could be used in the prediction of General Science course grades obtained by juniors in 1984-85.

When the model comparisons were made for ethnic group differences, using the Perceptual composite, the results showed statistically significant intercept differences between the White and Black regression lines. The R^2 change for the Model 11 and Model 12 comparison was approximately .119 ($p \leq .01$), with Model 11 being the best prediction equation for this sample's General Science grade. Thus, using this composite, White juniors would be consistently underpredicted in their General Science grades if the common regression line were used, while Black juniors would be consistently overpredicted if a common regression line were used.

<u>Juniors 1985-86</u>. In this sample, using the Perceptual composite score as the aptitude predictor variable, the results showed no statistically significant slope or intercept differences for the gender group members. Again, Model 9 could be used in the prediction of General Science course grades obtained in 1985-86 by juniors.

With the Perceptual composite as the aptitude measure the results showed statistically significant slope differences in the prediction equation for the White and Nonwhite ethnic groups. These comparisons resulted in R^2 change of .034 ($p \leq .01$) for the Model 10 vs Model 11 comparison. Therefore, Model 10 would be the best prediction equations for this sample. Thus, the change in the General Science grade per unit change in the Perceptual composite was significantly different for White and Nonwhite juniors.

Biology I -II

Freshmen 1984-85. In this sample, using the Perceptual composite score as the aptitude predictor variable, the results showed no statistically significant slope or intercept differences for the gender group members. Again, Model 9 could be used in the prediction of Biology course grades obtained in 1984-85 by freshmen.

When the model comparisons were made for ethnic group differences, using the Perceptual composite, the results showed statistically significant intercept differences between the White and Nonwhite regression lines. The R^2 change for the Model 11 and Model 12 comparison was approximately .026 ($p \leq .01$), with Model 11 being the best prediction equation for this sample's Biology grade. Thus, using this composite, White freshmen would be consistently underpredicted in their Biology grades if the common regression line were used, while Nonwhite freshmen would be consistently overpredicted if a common regression line were used.

Freshmen 1985-86. In this sample, using the Perceptual composite score as the aptitude predictor variable, the results showed no statistically significant slope or intercept differences for the gender group members. Again, Model 9 could be used in the prediction of Biology course grades obtained in 1985-86 by freshmen.

When the model comparisons were made for ethnic group differences, using the Perceptual composite, the results showed statistically significant intercept differences between the White and Black regression lines. The R^2 change for the Model 11 and Model 12 comparison was approximately .019 ($p \leq .001$), with Model 11 being the best prediction equation for this sample's Biology grade. Thus, using this composite, White freshmen would be consistently underpredicted in their Biology grades if the common regression line were used, while Black freshmen would be consistently overpredicted if a common regression line were used.

Sophomores 1984-85. In this sample, using the Perceptual composite score as the aptitude predictor variable, the results showed no statistically significant slope or intercept differences for the gender group members. Again, Model 9 could be used in the prediction of Biology course grades obtained in 1984-85 by sophomores.

When the model comparisons were made for ethnic group differences, using the Perceptual composite, the results showed statistically significant intercept differences between the White and Black regression lines. The R^2 change for the Model 11 and Model 12 comparison was approximately .011 ($p \leq .001$), with Model 11 being the best prediction equation for this sample's Biology grade. Thus, using this composite, White sophomores would be

consistently underpredicted in their Biology grades if the common regression line were used, while Black sophomores would be consistently overpredicted if a common regression line were used.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. These tests resulted statistically significant intercept differences between the gender group members and an R^2 change of .023 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, sophomore females would be consistently underpredicted in their Biology grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the three ethnic groups. Thus, Model 12, which contained only the unit vector and the Perceptual composite score in the prediction equation, could be used in the prediction of Biology course grade for these sophomores during this school year.

Juniors 1984-85. In this sample, using the Perceptual Speed composite score as the aptitude predictor variable, the results also showed no statistically significant slope or intercept differences for the gender group members. Again, Model 9 could be used in the prediction of Biology course grades obtained by juniors.

When the model comparisons were made for ethnic group differences, using the Perceptual composite, the results showed statistically significant intercept differences between the White and Nonwhite regression lines. The R^2 change for the Model 11 and Model 12 comparison was approximately .033 ($p \leq .01$), with Model 11 being the best prediction equation for this sample's Biology grade. Thus, using this composite, White juniors would be consistently underpredicted in their Biology grades if the common regression line were used, while Nonwhite juniors would be consistently overpredicted if a common regression line were used.

Juniors 1985-86. This sample tested only for gender group differences. Using the Perceptual composite as the predictor variable resulted in no statistically significant slope or intercept differences for the gender groups. Thus, Model 9, which contained the unit vector and the ASVAB Perceptual composite, could be used in the prediction of Biology course grade for these juniors.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White

and Black ethnic group differences were studied by not including the gender variables in the equations. The use of this Perceptual composite in the equations resulted in no statistically significant slope or intercept differences for the gender group members. Model 9 could be used in the prediction of Biology course grade for these seniors.

Statistically significant intercept differences resulted between the White and Black ethnic subgroups. With an R^2 change of .029 ($p \leq .01$) for the Model 11 vs Model 12 comparison, Model 11 would be the best prediction system. Thus, if a common regression line using the Perceptual composite as the aptitude measure were used in the prediction of Biology course grade, White seniors would be consistently underpredicted on this criterion while Black seniors would be consistently overpredicted.

Chemistry I - II

Freshmen 1985-86. This sample tested only for gender group differences. Using the Perceputal composite in the equations, the results showed no statistically significant slope or intercept differences for the gender groups. Thus, Model 9, which contained the unit vector and the Perceptual Speed composite, could be used in the prediction of Chemistry course grades obtained by freshmen in this year.

Sophomores 1985-86. This sample tested only for gender group differences. Using the Perceptual composite as the predictor variable, the results indicated statistically significant intercept differences for the gender groups. With an R^2 change of .023 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction system of Chemistry course grade for these sophomores. Using this composite, sophomore females would be consistently underpredicted in their Chemistry grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regressior line were used.

Juniors 1984-85. Using this ASVAB composite score as the aptitude predictor variable resulted in no statistically significant slope or intercept differences for the gender groups or the White and Nonwhite ethnic group members. Thus, Model 9 or Model 12, which contained only the unit vector and the Perceptual composite score in the prediction equation, could be used in the prediction of Chemistry course grades obtained by juniors during this school year.

Physics I - II

Juniors 1985-86. This sample tested only for gender group differences. Using the Perceptual composite in the equations resulted in no statistically significant slope or intercept differences for the gender groups. Thus, Model 9, which

contained the unit vector and the ASVAB Perceptual composite, could be used in the prediction of Physics course grades obtained during this year by juniors.

Government and Civics

Freshmen 1984-85. This sample tested only for gender group differences. The Perceptual composite prediction equations resulted in no statistically significant slope or intercept differences for the gender groups. Thus, Model 9, which contained the unit vector and the ASVAB Perceptual composite, could be used in the prediction of Government course grades obtained by freshmen for this year.

Sophomore 1984-85. This sample tested for gender group differences. Again, using the Perceptual composite as the predictor variable, the results showed no statistically significant slope or intercept differences for the gender groups. Model 9 could be used in the prediction of Government course grade for these sophomores.

Sophomores 1985-86. The use of this ASVAB composite score as the aptitude measure resulted in no statistically significant slope or intercept differences for the gender group members. Thus, Model 9, which contained only the unit vector and the Perceptual composite score in the prediction equation, could be used in the prediction of Government course grades obtained by sophomores during this school year.

Statistically significant intercept differences resulted between the White and Hispanic ethnic subgroups. With an R^2 change of .041 ($p \leq .01$) for the Model 11 vs Model 12 comparison, Model 11 would be the best prediction system. Thus, if a common regression line using the Perceptual composite as the aptitude measure were used in the prediction of Government course grade, White sophomores would be consistently underpredicted on this criterion while Hispanic sophomores would be consistently overpredicted.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. As in previous samples, the Perceptual composite equations resulted in no statistically significant intercept differences for the gender groups. Model 9, containing the unit vector and the Perceptual composite score, could be used in the prediction of Government course grade for these individuals.

The use of this Perceptual composite in the equations again resulted in statistically significant intercept differences for the ethnic subgroups. With an R^2 change of .051 ($p \leq .01$) for the

Model 11 vs 12 comparison, Model 11 would be the best prediction equations for these juniors. Using this composite, White juniors would be consistently underpredicted in their Government grades if the common regression line were used, while Nonwhite juniors would be consistently overpredicted if a common regression line were used.

Juniors 1985-86. Using this ASVAB composite score, the results showed no statistically significant slope or intercept differences for gender groups. Thus, Model 9, which contained only the unit vector and the Perceptual composite score in the prediction equation, could be used in the prediction of Government course grade for these juniors.

With the Perceptual composite as the aptitude measure the results showed statistically significant slope differences in the prediction equation for the White and Black ethnic groups. These comparisons resulted in R^2 change of .019 ($p \leq .001$) for the Model 10 vs Model 11 comparison. Therefore, Model 10 would be the best prediction equations for this sample. Thus, the change in the Government grade per unit change in the Perceptual composite was significantly different for White and Black juniors.

Seniors 1984-85. Similar to some of the previous samples, using the Perceptual composite score as the aptitude predictor variable, resulted in no statistically significant intercept differences for the gender or White and Black ethnic group members. Again, Models 9 or 12, which contained only the unit vector and the Perceptual composite score in the prediction equation, could be used in the prediction of Government course grades for these seniors.

History

Freshmen 1984-85. Using the Perceptual Speed composite with this sample, the results showed statistically significant differences between the Model 2 vs Models 4, 5 and 6 comparisons. With Model 2 as the best prediction equation for this sample's History grade, differential validity for the gender by Perceptual score and ethnicity by Perceptual score two-way interaction predictor variables was evidenced. The ethnic subgroups included in this sample were White, Black and Hispanic.

Freshmen 1985-86. The use of this ASVAB composite score as the aptitude measure resulted in no statistically significant slope or intercept differences for the gender group members. Thus, Model 9, which contained only the unit vector and the Perceptual composite score in the prediction equation, could be used in the prediction of History course grades obtained by freshmen during this school year.

Statistically significant intercept differences resulted between the White and Black ethnic subgroups. With an R^2 change of .013 ($p \leq .001$) for the Model 11 vs Model 12 comparison, Model 11 would be the best prediction system. Thus, if a common regression line using the Perceptual composite as the aptitude measure were used in the prediction of History course grade, White freshmen would be consistently underpredicted on this criterion while Black freshmen would be consistently overpredicted.

Sophomores 1984-85. The use of this ASVAB composite score as the aptitude measure also resulted in no statistically significant slope or intercept differences for the gender group members. Thus, Model 9, which contained only the unit vector and the Perceptual composite score in the prediction equation, could be used in the prediction of History course grades obtained by sophomores during this school year.

Again, statistically significant intercept differences resulted between the White and Black ethnic subgroups. With an R^2 change of .019 ($p \leq .001$) for the Model 11 vs Model 12 comparison, Model 11 would be the best prediction system. Thus, if a common regression line using the Perceptual composite as the aptitude measure were used in the prediction of Government course grade, White sophomores would be consistently underpredicted on this criterion while Black sophomores would be consistently overpredicted.

Sophomores 1985-86. Using the Perceptual Speed composite with this sample, the results showed statistically significant differences between the Model 2 vs Model 4 comparison. However, the Model 2 vs Model 5 comparsion showed that these two models were not significantly different. Model 5 included the unit vector, the Perceptual score by ethnicity two-way interaction predictor variables, and the sex by ethnicity two-way interaction predictor variables. With Model 5 as the best prediction equation for this sample's History grade, no differential validity for the gender by Perceptual score two-way interaction predictor variables was evidenced.

Juniors 1984-85. In this sample, using the Perceptual composite score as the aptitude predictor variable, the results showed no statistically significant slope or intercept differences for the gender group members. Again, Model 9 could be used in the prediction of History course grades obtained in 1984-85 by juniors.

When the model comparisons were made for ethnic group differences, using the Perceptual composite, the results showed statistically significant intercept differences between the White and Black regression lines. The R^2 change for the Model 11 and Model 12 comparison was approximately .055 ($p \leq .001$), with Model 11 being the best prediction equation for this sample's History grade. Thus, using this composite, White juniors would be

consistently underpredicted in their History grades if the common regression line were used, while Black juniors would be consistently overpredicted if a common regression line were used.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. Using the Perceptual composite score as the aptitude predictor variable, results showed statistically significant intercept differences in the prediction equations for the two junior gender groups and resulted in an R^2 change of .015 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, junior females would be consistently underpredicted in their History grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Again, statistically significant intercept differences resulted between the White and Black ethnic subgroups. With an R^2 change of .035 ($p \leq .01$) for the Model 11 vs Model 12 comparison, Model 11 would be the best prediction system. Thus, if a common regression line using the Perceptual composite as the aptitude measure were used in the prediction of History course grade, White juniors would be consistently underpredicted on this criterion while Black juniors would be consistently overpredicted.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. The use of the Perceptual composite in the prediction equations resulted in no statistically significant slope or intercept differences for the gender group members. Model 9 could be used in the prediction of History course grade for these seniors.

Statistically significant intercept differences resulted between the White and Black ethnic subgroups. With an R^2 change of .074 ($p \leq .01$) for the Model 11 vs Model 12 comparison, Model 11 would be the best prediction system. Thus, if a common regression line using the Perceptual composite as the aptitude measure were used in the prediction of History course grade, White seniors would be consistently underpredicted on this criterion while Black seniors would be consistently overpredicted.

Foreign Language

Freshmen 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The use of the ASVAB Perceptual composite as the aptitude predictor variable showed statistically significant intercept differences in the prediction equations for the two freshmen gender groups. The results showed an R^2 change of .014 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the aptitude predictor variable, freshmen females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

The use of this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences in the prediction equations for the White, Black and Hispanic ethnic groups. Therefore, Model 12, containing the unit vector and the Perceptual composite score, could be the best prediction equation for this sample's Foreign Language grades.

Freshmen 1985-86. At first, using this composite with thi sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. When the model comparisons were made for gender group differences, using the Perceptual composite within the equations, the results showed statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .017 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Foreign Language grade. Thus, freshmen females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

When the model comparisons were made for ethnic group differences, using the Perceptual composite within the equations, the results showed no statistically significant slope or intercept differences between the White, Black and Hispanic regression lines. Model 12, which contained only the unit vector and the Perceptual composite score in the prediction equation, could be used in the prediction of Foreign Language course grades obtained by freshmen during this school year.

Sophomores 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the

White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The Perceptual composite predictor equations showed statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .028 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Foreign Language grade. Thus, using this composite as the aptitude measure, sophomore females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

When the model comparisons were made for ethnic group differences, the use of this Perceptual composite in the prediction equations resulted in no statistically significant slope or intercept differences for the ethnic group members. Therefore, Model 12, which contained the unit vector and the Perceptual composite, could be used in the prediction of these sophomores' Foreign Language course grade.

<u>Sophomores 1985-86</u>. Using the ASVAB Perceptual composite as the aptitude predictor in the equations showed statistically significant intercept differences in the prediction equations for the two sophomore gender groups and resulted in an R^2 change of .018 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite sophomore females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

The use of this ASVAB composite score in the prediction equations resulted in no statistically significant slope or intercept differences for the White and Nonwhite ethnic group members. Again, Model 12 could be used in the prediction of Foreign Language course grades obtained by sophomores during this school year.

<u>Juniors 1984-85</u>. Using the ASVAB Perceptual composite as the aptitude predictor in the equations showed statistically significant intercept differences in the prediction equations for the two gender groups and resulted in an R^2 change of .040 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite junior females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

With the Perceptual composite as the aptitude measure the results showed statistically significant slope differences in the prediction equation for the White, Black and Hispanic ethnic groups. These comparisons resulted in R^2 change of .022 ($p \leq .01$)

for the Model 10 vs Model 11 comparison. Therefore, Model 10 would be the best prediction equations for this sample. Thus, the change in the Foreign Language grade per unit change in the Perceptual composite was significantly different for White, Black and Hispanic juniors.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The Perceptual prediction equations resulted in no statistically significant slope or intercept differences for the gender or White and Hispanic ethnic group members. Thus, Model 9 or 12, which contained only the unit vector and the Perceptual composite score in the prediction equation, could be used in the prediction of Foreign Language course grades obtained by juniors during this school year.

Secretary and Office Education

Juniors 1985-86. This sample tested only for White and Nonwhite ethnic group differences. Using the Perceptual composite as the aptitude predictor variable, the results showed no statistically significant slope or intercept differences for the ethnic groups. Thus, Model 12, which contained the unit vector and the ASVAB Perceptual composite, could be used in the prediction of this course grade for these juniors.

Seniors 1984-85. This sample also tested only for White and Nonwhite ethnic group differences. Again, using the Perceptual composite prediction equations the results showed no statistically significant slope or intercept differences for the ethnic groups. Thus, Model 12, which contained the unit vector and the ASVAB Perceptual composite, could be used in the prediction of Secretary and Office course grades obtained by these seniors.

Typing and Word Processing

Freshmen 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The Perceptual prediction equations resulted in no statistically significant slope or intercept differences for the gende group members. Thus, Model 9, which contained only the unit vector and the Perceptual composite score in the prediction equation, could be used in the prediction of Typing course grades obtained by freshmen during this school year.

Statistically significant intercept differences resulted between the White, Black and Hispanic ethnic subgroups. With an R^2 change of .041 ($p \leq .01$) for the Model 11 vs Model 12 comparison, Model 11 would be the best prediction system. Thus, if a common regression line using the Perceptual composite as the aptitude measure were used in the prediction of Typing course grade, White and Hispanic freshmen would be consistently underpredicted on this criterion while Black freshmen would be consistently overpredicted.

Freshmen 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Hispanic ethnic group differences were studied by not including the gender variables in the equations. Unlike the previous sample, the Perceptual composite prediction equations resulted in no statistically significant slope or intercept differences for the gender or ethnic group members. Again, Model 9 or 12 could be used in the prediction of Typing course grades obtained by freshmen for this school year.

Sophomores 1984-85. At first, using this composite with this sample, gender differences wer investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. When the model comparisons were made for gender group differences, using the Perceptual composite resulted in statistically significant slope differences between the male and female regression lines. The R^2 change for the Model 7 and Model 8 comparison was approximately .010 ($p \leq .01$), with Model 7 being the best prediction equation for this group's Typing grade. Thus, the change in the Typing grade per unit change in the Perceptual composite was significantly different for this year's sophomore males and females.

The results showed no statistically significant slope or intercept differences for the ethnic group members. Model 12 could be used in the prediction of Typing course grade for these sophomores.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. The Perceptual composite prediction equations resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. Again, Model 9 or 12 could be used in the prediction of Typing course grade for these juniors.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White

and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The use of the Perceptual composite in the equations resulted in no statistically significant slope or intercept differences for the gender group members. Again, Model 9 could be used in the prediction of Typing course grade for these juniors.

Statistically significant intercept differences resulted between the White and Nonwhite ethnic subgroups. With an R^2 change of .055 ($p \leq .01$) for the Model 11 vs Model 12 comparison, Model 11 would be the best prediction system. Thus, if a common regression line using the Perceptual composite as the aptitude measure were used in the prediction of Typing course grade, White juniors would be consistently underpredicted on this criterion while Nonwhite juniors would be consistently overpredicted.

Seniors 1984-85. This sample tested only for gender group differences. The Perceptual composite equations resulted in no statistically significant slope or intercept differences for the gender groups. Thus, Model 9, which contained the unit vector and the Perceptual composite, could be used in the prediction of Typing course grades obtained by seniors for this year.

Accounting and Bookkeeping

Sophomores 1985-86. This sample tested only for gender group differences. The use of the Perceptual composite as the predictor variable showed no statistically significant slope or intercept differences in the prediction equation. Therefore, Model 9 containing the unit vector and the Perceptual composite score would be the best prediction equation for this sample.

Juniors 1984-85. This sample also tested for gender group differences. Using the Perceptual composite prediction equations, the results showed no statistically significant slope or intercept differences for the gender groups. With an R^2 change of .027 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, junior females would be consistently underpredicted in their Accounting grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Juniors 1985-86. This sample tested for gender group differences. Again, using the Perceptual composite in the prediction equations resulted in no statistically significant slope or intercept differences for the gender groups. Model 9 could be used in the prediction of Accounting course grade for these juniors.

Seniors 1984-85. Like the junior samples, this sample tested for gender group differences. The use of the Perceptual composite as a predictor variable resulted in no statistically significant slope or intercept differences for the gender groups. Again, Model 9 could be used in the prediction of Accounting course grade for these individuals.

Home Economics

Freshmen 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. The prediction equations with the ASVAB Perceptual composite showed statistically significant intercept differences in the prediction equations for the two freshmen gender groups and resulted in an R^2 change of .019 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, freshmen females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the Perceptual composite, the results showed statistically significant intercept differences in the prediction equations for the two ethnic groups. An R^2 change of .089 ($p \leq .01$) for the Model 11 vs Model 12 comparison was evidenced; and Model 11 could be used in the prediction of Home Economics course grade for these juniors. Using this predictor composite, freshmen Whites would be consistently underpredicted in their Home Economics grades if the common regression line were used, while freshmen Blacks would be consistently overpredicted if a common regression line were used.

Freshmen 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Using the Perceptual composite as a predictor variable, the results showed statistically significant intercept differences for these two freshmen gender groups and resulted in an R^2 change of .041 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the aptitude measure, freshmen females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

The Perceptual prediction equations resulted in no statistically significant slope or intercept differences for the ethnic group members. Thus, Model 12, which contained only the unit vector and the Perceptual composite score in the prediction equation, could be used in the prediction of Home Economics course grades obtained by freshmen during this school year.

Sophomore 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The prediction equations with the ASVAB Perceptual composite showed statistically significant intercept differences in the prediction equations for the two gender groups and resulted in an R^2 change of .019 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, sophomore females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

When the model comparisons were made for ethnic group differences, using the Perceptual composite resulted in statistically significant slope differences between the White and Nonwhite regression lines. The R^2 change for the Model 10 and Model 11 comparison was approximately .017 ($p \leq .01$), with Model 10 being the best prediction equation for this group's Home Economics grade. Thus, the change in the Home Economics grade per unit change in the Perceptual composite was significantly different for this year's White and Nonwhite sophomores.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The use of the Perceptual composite prediction equations resulted in statistically significant intercept differences for the gender group members and resulted in an R^2 change of .017 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, sophomore females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB Perceptual composite, the results showed no statistically significant slope or intercept differences in the prediction equations for the two ethnic groups. Model 12 could be used in the prediction of Home Economics course grade for these sophomores.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The use of the Perceptual composite prediction equations resulted in no statistically significant slope or intercept differences in the prediction equations for the gender or ethnic groups. Model 9 or 12 could be used in the prediction of Home Economics course grade for these juniors.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Again, this sample, using the Perceptual composite equations, resulted in statistically significant intercept differences for the gender group members. An R^2 change of .056 ($p \leq .01$) for the Model 8 vs Model 9 comparison was evidenced; therefore, Model 8 would be the best prediction equation for this sample. Using this predictor composite junior females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB Perceptual composite, the results indicated no statistically significant slope or intercept differences in the prediction equations for the two ethnic groups. Model 12 could be used in the prediction of Home Economics course grade for these juniors.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. As in the junior 1985-86 sample, the Perceptual composite equations resulted in statistically significant intercept differences for the gender group members. An R^2 change of .028 ($p \leq .01$) was obtained for the Model 8 vs Model 9 comparison; therefore, Model 8 would be the best prediction equation for this sample. Using this composite senior females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

The tests for ethnic group differences were conducted using the ASVAB Perceptual composite, and the results showed no statistically significant slope or intercept differences in the prediction equations for the two ethnic groups. Model 12 could be used in the prediction of Home Economics course grade for these seniors.

Computer Programming

Sophomores 1985-86. This sample tested only for gender group differences. Using the Perceptual composite as a predictor variable, the results showed statistically significant intercept differences for the gender group members. An R^2 change of .038 ($p \leq .01$) was obtained for the Model 8 vs Model 9 comparison; therefore, Model 8 would be the best prediction equation for this sample. Using this composite sophomore females would be consistently underpredicted in their Computer Programming grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Juniors 1984-85. Like the sophomore sample, this sample tested for gender group differences. However, using the Perceptual composite as a predictor variable, the results showed no statistically significant slope or intercept differences for the gender group members. Thus, Model 9, which contained the unit vector and the Perceptual composite score, could be used in the prediction of Computer Programming grades for these individuals.

Juniors 1985-86. The model comparisons also tested only for gender group differences. Using the Perceptual high school predictor composite, the results showed statistically significant intercept differences in the prediction equations for the two junior gender groups and resulted in an R^2 change of .054 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite junior females would be consistently underpredicted in their Computer Programming grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Table 13. Summary of Equity Findings for Prediction of High School Course Grades by Perceptual Speed Composite

Course	Sex	Ethnicity	Sex*Ethnicity
English I-IV			
Fresh 84-85	NS	S	I
Fresh 85-86	NS	S	I
Soph 84-85	I	I	NS
Soph 85-86	I	I	NS
Jr 84-85	I	I	NS
Jr 85-86	I	I	NS
Sr 84-85	I	I	NS

Note. NS = Not significant; I = Intercept differences; S = Slope differences; E = Equitable test, no significant slope or intercept differences found; NT = Not tested due to small sample sizes.

Table 13. (Continued)

Course	Sex	Ethnicity	Sex*Ethnicity
General Math			
Fresh 84-85	E	I	NS
Fresh 85-86	E	E	NS
Soph 84-85	E	E	NS
Soph 85-86	E	I	NS
Jr 84-85	E	E	NS
Jr 85-86	E	I	NS
Sr 84-85	E	I	NS
Algebra			
Fresh 84-85	I	E	NS
Fresh 85-86	E	I	NS
Soph 84-85	E	E	NS
Soph 85-86	E	I	NS
Jr 84-85	E	E	NS
Jr 85-86	E	I	NS
Geometry			
Fresh 85-86	E	S	NS
Soph 84-85	E	I	NS
General Science			
Fresh 84-85	NS	S	I
Fresh 85-86	E	E	NS
Soph 84-85	E	E	NS
Soph 85-86	E	I	NS
Jr 84-85	E	I	NS
Jr 85-86	E	S	NS
Biology			
Fresh 84-85	E	I	NS
Fresh 85-86	E	I	NS
Soph 84-85	E	I	NS
Soph 85-86	I	E	NS
Jr 84-85	E	I	NS
Jr 85-86	C	NT	NS
Sr 84-85	E	I	NS
Chemistry			
Fresh 85-86	E	NT	NS
Soph 85-86	I	NT	NS
Jr 84-85	E	E	NS
Physics			
Jr 85-86	E	NT	NS
Government			
Fresh 84-85	E	NT	NS
Soph 84-85	E	NT	NS
Soph 85-86	E	I	NS
Jr 84-85	E	I	NS
Jr 85-86	E	S	NS
Sr 84-85	E	E	NS
History			
Fresh 84-85	S	S	S
Fresh 85-86	E	I	NS
Soph 84-85	E	I	NS
Soph 85-86	NS	S	I
Jr 84-85	E	I	NS
Jr 85-86	I	I	NS
Sr 84-85	E	I	NS

Note. NS = Not significant; I = Intercept differences; S = Slope differences; E = Equitable test, no significant slope or intercept differences found; NT = Not tested due to small sample sizes.

Table 13. (Concluded)

Course		Sex	Ethnicity	Sex*Ethnicity
Foreign Language				
Fresh	84-85	I	E	NS
Fresh	85-86	I	E	NS
Soph	84-85	I	E	NS
Soph	85-86	I	E	NS
Jr	84-85	I	S	NS
Jr	85-86	E	E	NS
Secretary & Ofc				
Jr	85-86	NT	E	NS
Sr	84-85	NT	E	NS
Typing				
Fresh	84-85	E	I	NS
Fresh	85-86	E	E	NS
Soph	84-85	S	E	NS
Jr	84-85	E	E	NS
Jr	85-86	E	I	NS
Sr	84-85	E	NT	NS
Accounting				
Soph	85-86	E	NT	NS
Jr	84-85	I	NT	NS
Jr	85-86	E	NT	NS
Sr	84-85	E	NT	NS
Home Economics				
Fresh	84-85	I	I	NS
Fresh	85-86	I	E	NS
Soph	84-85	I	S	NS
Soph	85-86	I	E	NS
Jr	84-85	E	E	NS
Jr	85-86	I	E	NS
Sr	84-85	I	E	NS
Computer Program				
Soph	85-86	I	NT	NS
Jr	84-85	E	NT	NS
Jr	85-86	I	NT	NS

Note. NS = Not significant; I = Intercept differences; S = Slope differences; E = Equitable test, no significant slope or intercept differences found; NT = Not tested due to small sample sizes.

Technical Composite

English I - IV

Freshmen 1984-85. When the model comparisons were made for gender group differences, using the Technical composite resulted in statistically significant slope differences between the male and female regression lines. The R^2 change for the Model 7 and Model 3 comparison was approximately .007 ($p \leq .001$), with Model 7 being the best prediction equation for this groups English grade. Thus, the change in the English grade per unit change in the ASVAB Technical composite was significantly different for this year's freshmen males and females.

Using the Technical composite score as the aptitude measure resulted in no statistically significant slope or intercept differences for White, Black and Hispanic sophomores which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the Technical composite score in the prediction equation, could be used in the prediction of English course grade for these freshmen.

Freshmen 1985-86. This composite showed statistically significant intercept differences in the prediction equations for the two freshmen gender groups and resulted in an R^2 change of .064 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the Technical composite as the predictor variable freshmen females would be consistently underpredicted in their English grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

When the model comparisons were made for ethnic group differences using this ASVAB composite, the results showed statistically significant intercept differences among the White, Black and Hispanic regression lines. With an R^2 change of .016 ($p \leq .001$) for the Model 11 vs Model 12 comparison, Model 11 would be the best prediction equation for this sample. Using the Technical composite as the predictor variable White freshmen would be consistently underpredicted in their English grades if the common regression line were used, while Black freshmen would be consistently overpredicted if a common regression line were used. The Hispanic freshmen regression line appeared to be at an equal distance between the White and Black regression lines.

Sophomores 1984-85. When the model comparisons were made for gender group differences, using the Technical composite resulted in statistically significant slope differences between the male and female regression lines. The R^2 change for the Model 7 and Model 8 comparison was approximately .013 ($p \leq .001$), with Model 7 being the best prediction equation for this groups English grade. Thus, the change in the English grade per unit change in the ASVAB Technical composite was significantly different for this year's sophomore males and females.

When the model comparisons were made for ethnic group differences using this ASVAB composite, the results showed statistically significant intercept differences among the White, Black and Hispanic regression lines. With an R^2 change of .016 ($p \leq .001$) for the Model 11 vs Model 12 comparison, Model 11 would be the best prediction equation for this sample. Using the Technical composite as the predictor variable White and Hispanic freshmen would be consistently underpredicted in their English grades if the common regression line were used, while Black freshmen would be consistently overpredicted if a common regression line were used.

Sophomores 1985-86. When the model comparisons were made for gender group differences, using the Technical composite resulted in statistically significant slope differences between the male and female regression lines. The R^2 change for the Model 7 and Model 8 comparison was approximately .011 ($p \leq .001$), with Model 7 being the best prediction equation for this group's English grade. Thus, the change in the English grade per unit change in the ASVAB Technical composite was significantly different for this year's sophomore males and females.

Using the Technical composite score as the aptitude measure also resulted in statistically significant intercept differences for White, Black and Hispanic sophomores, which were the ethnic groups defined in the prediction equations. The R^2 change for the Model 11 and Model 12 comparison was approximately .031 ($p \leq .001$), with Model 11 being the best prediction equation for this sample. Thus, using the Technical composite as the predictor variable White and Hispanic sophomores would be consistently underpredicted in their English grades if the common regression line were used, while Black sophomores would be consistently overpredicted if a common regression line were used.

Juniors 1984-85. When the model comparisons were made for gender group differences, using the Technical composite resulted in statistically significant slope differences between the male and female regression lines. The R^2 change for the Model 7 and Model 8 comparison was approximately .010 ($p \leq .001$), with Model 7 being the best prediction equation for this group's English grade. Thus, the change in the English grade per unit change in the ASVAB Technical composite was significantly different for these junior males and females.

Using the Technical composite score as the aptitude measure also resulted in statistically significant intercept differences for White, Black and Hispanic sophomores, which were the ethnic groups defined in the prediction equations. The R^2 change for the Model 11 and Model 12 comparison was approximately .019 ($p \leq .001$), with Model 11 being the best prediction equation for this sample. Thus, using the Technical composite as the predictor variable White and Hispanic juniors would be consistently underpredicted in their English grades if the common regression line were used, while Black juniors would be consistently overpredicted if a common regression line were used.

Juniors 1985-86. As in the 1984-85 school year, using the Technical composite in the equations resulted in statistically significant slope differences between the male and female regression lines. The R^2 change for the Model 7 and Model 8 comparison was approximately .013 ($p \leq .001$), with Model 7 being the best prediction equation for this group's English grade. Thus, the change in the English grade per unit change in the ASVAB Technical composite was significantly different for these junior males and females.

Using the Technical composite score resulted in statistically significant intercept differences for the ethnic groups, with this sample including only White and Black individuals. The R^2 change for the Model 11 and Model 12 comparison was approximately .016 ($p \leq .001$), with Model 11 being the best prediction equation for this sample. Thus, using the Technical composite as the predictor variable White juniors would be consistently underpredicted in their English grades if the common regression line were used, while Black juniors would be consistently overpredicted if a common regression line were used.

<u>Seniors 1984-85</u>. The ASVAB Technical composite as the aptitude predictor showed statistically significant slope differences in the prediction equations for the two senior gender groups and resulted in an R change of .009 ($p \leq .001$) for the Model 7 vs Model 8 comparison. Therefore, Model 7 would be the best prediction equation for this sample. The change in the English grade per unit change in the ASVAB Technical composite was significantly different for these senior males and females.

Using this ASVAB composite score in the equations resulted in statistically significant intercept differences for the White, Black and Hispanic ethnic group members. The R^2 change for the Model 11 and Model 12 comparison was approximately .010 ($p \leq .001$), with Model 11 being the best prediction equation for this sample. Thus, using the Technical composite as the predictor variable White and Hispanic seniors would be consistently underpredicted in their English grades if the common regression line were used, while Black seniors would be consistently overpredicted if a common regression line were used.

<u>General Math</u>

<u>Freshmen 1984-85</u>. This sample, using the Technical composite score as the aptitude predictor variable, showed statistically significant intercept differences in the prediction equations for the two freshmen gender groups and resulted in an R^2 change of .019 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the Technical composite as the predictor variable freshmen females would be consistently underpredicted in their General Math grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

Using this composite in the prediction equations resulted in no statistically significant slope or intercept differences for the gender group members or the White, Black and Hispanic ethnic group members. Model 12, containing only the unit vector and the Technical composite score in the prediction equation, could be used in the prediction of General Math course grade for these freshmen.

Sophomores 1984-85. This sample also resulted in no statistically significant slope or intercept differences for the gender group members or the White, Black and Hispanic ethnic group members. Models 9 or 12, which contained only the unit vector and the Technical composite score in the prediction equation, could be used in the prediction of General Math course grades obtained during this year by sophomores.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. Using the Technical composite score as the aptitude predictor variable, showed statistically significant intercept differences between the male and female gender subgroups. With an R^2 change of .059 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction system. Thus, if a common regression line using the Technical composite were used in the prediction of General Math course grade, female juniors would be consistently underpredicted on the criterion while male juniors would be consistently overpredicted.

Using the Technical composite as the aptitude predictor variable resulted in no statistically significant slope or intercept differences for the ethnic group members. Thus, Model 12, containing the unit vector and the Technical composite score, could be used in predicting General Math course grade for these individuals.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. The results showed no statistically significant slope or intercept differences for the gender group or ethnic group members. Again, Models 9 or 12 could be used in the prediction of General Math course grades obtained in 1984-85 by seniors.

Algebra

Freshmen 1984-85. Using the Technical composite score as the aptitude predictor variable, showed statistically significant intercept differences between the male and female gender subgroups. With an R^2 change of .060 ($p \leq .001$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction system. Thus, if a common regression line using the Technical composite were used in the prediction of Algebra course grade, female freshmen would be consistently underpredicted on the criterion while male freshmen would be consistently overpredicted.

Using the Technical composite as the aptitude predictor variable resulted in no statistically significant slope or intercept differences for the ethnic group members, which were defined as White and Nonwhite in this sample. Thus, Model 12, containing the unit vector and the Technical composite score, could be used in predicting Algebra course grade for these individuals.

Freshmen 1985-86. Using the Technical composite score as the aptitude predictor variable, showed statistically significant intercept differences between the male and female gender subgroups. With an R^2 change of .068 ($p \leq .001$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction system. Thus, if a common regression line using the Technical composite were used in the prediction of Algebra course grade, female freshmen would be consistently underpredicted on the criterion while male freshmen would be consistently overpredicted.

With the Technical composite as the aptitude measure the results showed statistically significant intercept differences in the prediction equation for the White and Nonwhite ethnic groups. These comparisons resulted in R^2 changes of .022 ($p \leq .001$) for the Model 11 vs Model 12 comparison. Therefore, Model 11 would be the best prediction equations for this sample. Using this composite, White freshmen would be consistently underpredicted in their Algebra grades if the common regression line were used, while Nonwhite freshmen would be consistently overpredicted if a common regression line were used.

Sophomores 1984-85. In this 1984-85 sample, using the Technical composite score as the aptitude predictor variable, the results showed statistically significant intercept differences for the gender group members. These tests resulted in an R^2 change of .036 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, sophomore females would be consistently underpredicted in their Algebra grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the ethnic group members, which in this sample were defined as White and Nonwhite. Thus, Model 12, which contained only the unit vector and the Technical composite score in the prediction equation, could be used in the prediction of Algebra course grade for sophomores during this school year.

Sophomores 1985-86. In this sample, using the Technical high school composite, the results also showed statistically significant intercept differences for the gender group members. These tests resulted in an R^2 change of .034 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite,

sophomore females would be consistently underpredicted in their Algebra grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Using the Technical composite as the predictor resulted in no statistically significant slope or intercept differences for the White and Nonwhite ethnic group members. Thus, Model 12, which contained only the unit vector and the Technical composite score in the prediction equation, could be used in the prediction of Algebra course grades obtained in 1985-86 by sophomores.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Using the Technical composite as the aptitude predictor resulted in no statistically significant slope or intercept differences for the gender group members. Again, Model 9 could be used in the prediction of Algebra course grade for these juniors.

With the Technical composite as the aptitude measure the results showed statistically significant intercept differences in the prediction equation for the White and Nonwhite ethnic groups. These comparisons resulted in R^2 changes of .035 ($p \leq .01$) for the Model 11 vs Model 12 comparison. Therefore, Model 11 would be the best prediction equations for this sample. Using this composite, White juniors would be consistently underpredicted in their Algebra grades if the common regression line were used, while Nonwhite juniors would be consistently overpredicted if a common regression line were used.

Geometry

Freshmen 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. These tests resulted in an R^2 change of .020 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, freshmen females would be consistently underpredicted in their Geometry grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

With the Technical composite as the aptitude measure the results showed statistically significant intercept differences in the prediction equation for the White, Black and Hispanic ethnic groups. These comparisons resulted in R^2 changes of .021 ($p \leq .01$) for the Model 11 vs Model 12 comparison. Therefore, Model 11 would be the best prediction equations for this sample. Using

this composite, White and Hispanic freshmen would be consistently underpredicted in their Geometry grades if the common regression line were used, while Black freshmen would be consistently overpredicted if a common regression line were used.

Sophomores 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. Using the Technical composite in the equations resulted in statistically significant intercept differences for the gender group members. With an R^2 change of .041 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction system for these sophomores. Using this composite, sophomore females would be consistently underpredicted in their Geometry grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Using the Technical composite resulted in no statistically significant slope of intercept differences for the three ethnic groups. Model 12 could be used in the prediction of Geometry course grade for these sophomores.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. With the Technical composite as the aptitude measure, the results showed statistically significant intercept differences for the gender group members. With an R^2 change of .072 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction equation for Geometry course grade for these sophomores. Using this composite, sophomore females would be consistently underpredicted in their Geometry grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

With the Technical composite as the aptitude measure the results showed statistically significant intercept differences in the prediction equation for the White and Black ethnic groups. These comparisons resulted in R^2 change of .039 ($p \leq .01$) for the Model 11 vs Model 12 comparison. Therefore, Model 11 would be the best prediction equations for this sample. Using this composite, White sophomores would be consistently underpredicted in their Geometry grades if the common regression line were used, while Black sophomores would be consistently overpredicted if a common regression line were used.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White

and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. With the Technical composite as the aptitude measure, the results showed statistically significant intercept differences for the gender group members. With an R^2 change of .056 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction equation for Geometry course grade for these sophomores. Using this composite, sophomore females would be consistently underpredicted in their Geometry grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Using the Technical composite resulted in no statistically significant slope of intercept differences for the three ethnic groups. Model 12 could be used in the prediction of Geometry course grade for these sophomores.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. With the Technical composite as the aptitude measure, the results showed no statistically significant slope or intercept differences for the gender group members. Thus, Model 9 could be used in the prediction of Geometry course grades obtained by juniors during the 1985-86 school year.

When the model comparisons were made for ethnic group differences using the Technical composite, the results showed statistically significant intercept differences for the ethnic group members. With an R^2 change of .109 ($p \leq .01$) for the Model 11 vs Model 12 comparison, Model 11 would be the best prediction equation for Geometry course grade for these juniors. Using this composite, White juniors would be consistently underpredicted in their Geometry grades if the common regression line were used, while Nonwhite juniors would be consistently overpredicted if a common regression line were used.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. In this sample, the Technical composite equations resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. Model 9 or 12 could be used in the prediction of Geometry course grade for these seniors.

General Science

Freshmen 1984-85. Using the Technical composite with this sample, the results showed no statistically significant

differences between the Model 2 vs Model 4 comparison. Model 4 included the unit vector, the Technical composite score, and the sex by ethnicity two-way interaction predictor variables, with ethnicity membership being defined as White, Black and Hispanic. With Model 4 as the best prediction equation for this sample's General Science grade, no differential validity was evidenced for the ethnicity by Technical score two-way interaction variables or the sex by Technical score two-way interaction variables.

<u>Freshmen 1985-86</u>. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. With the Technical composite as the aptitude measure, the results showed statistically significant intercept differences for the gender group members. With an R^2 change of .025 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction equation for General Science course grade for these freshmen. Using this composite, freshmen females would be consistently underpredicted in their General Science grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

Using the Technical composite as the aptitude predictor variable resulted in no statistically significant intercept differences for the ethnic group members. Model 12, which contained the unit vector and the Technical composite score, could be used in the prediction of General Science course grades obtained by freshmen in 1985-86.

<u>Sophomores 1984-85</u>. In this 1984-85 sample, using the Technical composite score as the aptitude predictor variable, the results showed statistically significant intercept differences for the gender group members. These tests resulted in an R^2 change of .078 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, sophomore females would be consistently underpredicted in their General Science grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the ethnic group members, which in this sample were defined as White and Nonwhite. Thus, Model 12, which contained only the unit vector and the Technical composite score in the prediction equation, could be used in the prediction of General Science course grade for these sophomores during this school year.

<u>Sophomores 1985-86</u>. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White

and Black ethnic group differences were studied by not including the gender variables in the equations. Again, using the Technical composite as the aptitude measure resulted in statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .059 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's General Science grade. Thus, using this composite, sophomore females would be consistently underpredicted in their General Science grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

When the model comparisons were made for ethnic group differences, using the Technical composite, the results showed statistically significant intercept differences between the White and Black regression lines. The R^2 change for the Model 11 and Model 12 comparison was approximately .048 ($p \leq .01$), with Model 11 being the best prediction equation for this sample's General Science grade. Thus, using this composite, White sophomores would be consistently underpredicted in their General Science grades if the common regression line were used, while Black sophomores would be consistently overpredicted if a common regression line were used.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Again, using the Technical composite within the prediction equation resulted in statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .035 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's General Science grade. Thus, using this composite, junior females would be consistently underpredicted in their General Science grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

This Technical composite prediction equation resulted in no statistically significant slope or intercept differences for the ethnic group members. Thus, Model 12 could be used in the prediction of General Science course grades obtained by juniors in 1985-86.

Seniors 1984-85. This sample tested only for gender group differences. Using the Technical composite within the prediction equation resulted in statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .052 ($p \leq .01$), with Model 8 being the best prediction equation for

this sample's General Science grade. Thus senior females would be consistently underpredicted in their General Science grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

Biology I - II

Freshmen 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Using the Technical composite within the prediction equation resulted in statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .065 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Biology grade. Thus, using this composite, freshmen females would be consistently underpredicted in their Biology grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

This Technical composite equation also resulted in no statistically significant slope or intercept differences for the ethnic group members. Again, Model 12 could be used in the prediction of Biology course grades obtained by freshmen in 1984-85.

Freshmen 1985-86. The use of this composite resulted in statistically significant intercept differences in the prediction equations for the two freshmen gender groups, with an R^2 change of .052 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the Technical composite as the predictor variable, freshmen females would be consistently underpredicted in their Biology grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score, the results showed no statistically significant slope or intercept differences for White and Black freshmen, which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the Technical composite score in the prediction equation, could be used in the prediction of Biology course grade for these freshmen.

Sophomores 1984-85. The use of this composite with this sample resulted in statistically significant slope differences in the prediction equations for the two freshmen gender groups, with an R^2 change of .008 ($p \leq .001$) for the Model 7 vs Model 8 comparison. Therefore, Model 7 would be the best prediction

equation for this sample. The change in the Biology grade per unit change in the ASVAB Technical composite was significantly different for these sophomore males and females.

When the tests for ethnic group differences were conducted using the Technical composite as the predictor composite, the results showed no statistically significant slope or intercept differences in the prediction equations for the White, Black and Hispanic ethnic groups. Thus, Model 12 could be used in the prediction of Biology grades obtained by sophomores during this school year.

<u>Sophomores 1985-86</u>. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. These tests resulted statistically significant slope differences between the gender group members and an R^2 change of .022 ($p \leq .01$) for the Model 7 vs Model 8 comparison. Therefore, Model 7 would be the best prediction equation for this sample. Thus, the change in the Biology grade per unit change in the Technical composite was significantly different for freshmen males and females.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the three ethnic groups. Thus, Model 12, which contained only the unit vector and the Technical composite score in the prediction equation, could be used in the prediction of Biology course grade for these sophomores during this school year.

<u>Juniors 1984-85</u>. The use of this composite resulted in statistically significant intercept differences in the prediction equations for the two junior gender groups, with an R^2 change of .075 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the Technical composite as the predictor variable, junior females would be consistently underpredicted in their Biology grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score, the results showed no statistically significant slope or intercept differences for White and Nonwhite juniors, which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the Technical composite score in the prediction equation, could be used in the prediction of Biology course grade for these juniors.

<u>Juniors 1985-86</u>. This sample tested only for gender group differences. Using the Technical composite as the predictor variable resulted in statistically significant intercept

differences for the gender groups. With an R^2 change of .131 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction equation of Biology course grade for these juniors. Using the Technical composite as the predictor variable, junior females would be consistently underpredicted in their Biology grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. The use of this Technical composite in the equations resulted in statistically significant intercept differences for the gender members. With an R^2 change of .110 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction equations for these seniors. Using this composite, senior females would be consistently underpredicted in their Biology grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the Technical composite as the predictor composite, the results showed statistically significant intercept differences in the prediction equations for the White and Black ethnic groups, with an R^2 change of .090 ($p \leq .01$) for the Model 11 vs Model 12 comparison. Therefore, Model 11 would be the best prediction equation for this sample. Using the Technical composite as the predictor variable, White seniors would be consistently underpredicted in their Biology grades if the common regression line were used, while Black seniors would be consistently overpredicted if a common regression line were used.

Chemistry I - II

Sophomores 1984-85. This sample tested only for gender group differences. Again, with the Technical composite in the equations, the results showed statistically significant intercept differences for the gender groups. With an R^2 change of .061 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 could be used in the prediction of Chemistry course grades obtained by these sophomores. Sophomore females would be consistently underpredicted in their Chemistry grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The use of this

Technical composite in the equations resulted in statistically significant intercept differences for the gender group members. With R^2 change of .070 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction equations for these juniors. Using this composite, junior females would be consistently underpredicted in their Chemistry grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score, the results showed no statistically significant slope or intercept differences for White and Nonwhite juniors, which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the Technical composite score in the prediction equation, could be used in the prediction of Chemistry course grade for these juniors.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Using the Technical composite, the results showed no statistically significant slope or intercept differences for the gender or White and Nonwhite ethnic group members. Model 9 or 12 could be used in the prediction of Chemistry course grades obtained by seniors during this school year.

Government and Civics

Freshmen 1984-85. This sample tested only for gender group differences. The Technical composite prediction equations resulted in statistically significant intercept differences for the gender groups. Thus, with an R^2 change of .040 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best predictor for this group's Government course grade. Freshmen females would be consistently underpredicted in their Government grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The use of this Technical composite in the equations resulted in statistically significant intercept differences for the gender and two ethnic group members. With R^2 changes of .040 and .041 ($p \leq .01$) for the Model 8 vs Model 9 and the Model 11 vs Model 12 comparisons, Models 8 and 11 would be the best prediction equations for these sophomores. Using this composite, sophomore females would be consistently underpredicted in their Government grades if the

common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used. Conversely, if a common regression line using the Technical composite as the aptitude measure were used in the prediction of Government course grade, White sophomores would be consistently underpredicted on this criterion while Hispanic sophomores would be consistently overpredicted.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The use of this Technical composite in the equations resulted in statistically significant intercept differences for the gender subgroup. With R^2 change of .073 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction equation for these juniors. Using this composite, junior females would be consistently underpredicted in their Government grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the Technical composite as the predictor composite, the results showed statistically significant intercept differences in the prediction equations for the White and Nonwhite ethnic groups, with an R^2 change of .022 ($p \leq .01$) for the Model 11 vs Model 12 comparison. Therefore, Model 11 would be the best prediction equation for this sample. Using the Technical composite as the predictor variable, White juniors would be consistently underpredicted in their Government grades if the common regression line were used, while Nonwhite juniors would be consistently overpredicted if a common regression line were used.

Juniors 1985-86. This sample, using the Technical composite score as the aptitude predictor variable, resulted in statistically significant slope differences for the gender group members. With an R^2 change of .019 ($p \leq .001$) for the Model 7 vs Model 8 comparison, Model 7 was the best prediction equation for this sample. Thus, the change in the Government grade per unit change in the Technical composite was significantly different for junior males and females.

Using this ASVAB composite score, the results showed no statistically significant slope or intercept differences for White and Black juniors, which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the Technical composite score in the prediction equation, could be used in the prediction of Government course grade for these juniors.

Seniors 1984-85. Similar to some of the previous samples, using the Technical composite score as the aptitude predictor variable, resulted in statistically significant intercept

differences for the gender group members. With R^2 change of .046 ($p \leq .001$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction equation for these seniors. Using this composite, senior females would be consistently underpredicted in their Government grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

When ethnic group differences were investigated using this composite, the results showed no statistically significant slope or intercept differences for the White and Black ethnic group members. Again, Model 12, which contained only the unit vector and the Technical composite score in the prediction equation, could be used in the prediction of Government course grades for these seniors.

History

Freshmen 1984-85. The use of the ASVAB Technical composite as the aptitude predictor variable showed statistically significant intercept differences in the prediction equations for the two freshmen gender groups and resulted in an R^2 change of .074 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, freshmen females would be consistently underpredicted in their History grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

The use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White, Black and Hispanic ethnic group members. Thus, Model 12, which contained only the unit vector and the Technical composite score in the prediction equation, could be used in the prediction of History course grades obtained by freshmen during this school year.

Freshmen 1985-86. This sample, using the Technical composite score as the aptitude predictor variable, resulted in statistically significant intercept differences in the prediction equations for the two freshmen gender groups and resulted in an R^2 change of .036 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, freshmen females would be consistently underpredicted in their History grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

The use of this ASVAB composite in the equations resulted in statistically significant intercept differences for the White and Black ethnic group members. With an R^2 change of .008 ($p \leq .001$) for the Model 11 vs Model 12 comparison, Model 11 would be the

best prediction equation for this sample. Using this composite as the predictor variable, White freshmen would be consistently underpredicted in their History grades if the common regression line were used, while Black freshmen would be consistently overpredicted if a mmon regression line were used.

Sophomores 1984-85. Using the Technical composite score as the aptitude predictor variable, the results showed statistically significant intercept differences in the prediction equations for the two sophomore gender groups and resulted in an R^2 change of .057 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, sophomore females would be consistently underpredicted in their History grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

The use of this ASVAB composite in the equations also resulted in statistically significant intercept differences for the White and Black ethnic group members. With an R^2 change of .014 ($p \leq .001$) for the Model 11 vs Model 12 comparison. Therefore, Model 11 would be the best prediction equation for this sample. Using this composite as the predictor variable, White sophomores would be consistently underpredicted in their History grades if the common regression line were used, while Nonwhite sophomores would be consistently overpredicted if a common regression line were used.

Sophomores 1985-86. This sample, using the Technical composite score as the aptitude predictor variable, resulted in statistically significant slope differences for the gender group members. With an R^2 change of .008 ($p \leq .001$) for the Model 7 vs Model 8 comparison, Model 7 was the best prediction equation for this sample. The change in the History grade per unit change in the ASVAB Technical composite was significantly different for these sophomore males and females.

The use of this ASVAB composite in the equations also resulted in statistically significant intercept differences for the White, Black and Hispanic ethnic group members. With an R^2 change of .031 ($p \leq .001$) for the Model 11 vs Model 12 comparison. Therefore, Model 11 would be the best prediction equation for this sample. Using this composite as the predictor variable, White and Hispanic sophomores would be consistently underpredicted in their History grades if the common regression line were used, while Black sophomores would be consistently overpredicted if a common regression line were used.

Juniors 1984-85. Like the previous sample, using the Technical composite score as the aptitude predictor variable resulted in statistically significant slope differences in the prediction equations for the two junior gender groups. With an R^2 change of .009 ($p \leq .001$) for the Model 7 vs Model 8 comparison,

Model 7 would be the best prediction equation for this sample. Thus, the change in the History grade per unit change in the ASVAB Technical composite was significantly different for these junior males and females.

The use of this ASVAB composite in the equations resulted in statistically significant intercept differences for the White and Black ethnic group members. An R^2 change of .030 ($p \leq .001$) for the Model 11 vs Model 12 comparison was evidenced. Therefore, Model 11 would be the best prediction equation for this sample. Using this composite as the predictor variable, White juniors would be consistently underpredicted in their History grades if the common regression line were used, while Black juniors would be consistently overpredicted if a common regression line were used.

<u>Juniors 1985-86</u>. Using the Technical composite score as the aptitude predictor variable, the results showed statistically significant intercept differences in the prediction equations for the two junior gender groups and resulted in an R^2 change of .082 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, junior females would be consistently underpredicted in their History grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

The use of this ASVAB composite in the equations resulted in statistically significant intercept differences for the White and Black ethnic group members. An R^2 change of .035 ($p \leq .01$) for the Model 11 vs Model 12 comparison was evidenced. Therefore, Model 11 would be the best prediction equation for this sample. Using this composite as the predictor variable, White juniors would be consistently underpredicted in their History grades if the common regression line were used, while Black juniors would be consistently overpredicted if a common regression line were used.

<u>Seniors 1984-85</u>. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. The use of the Technical composite in the prediction equations resulted in statistically significant intercept differences for the gender group members. An R^2 change of .062 ($p \leq .01$) for the Model 8 vs Model 9 comparison was evidenced. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, senior females would be consistently underpredicted in their History grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

Statistically significant intercept differences also resulted between the White and Black ethnic subgroups. With an R^2 change of .049 ($p \leq .01$) for the Model 11 vs Model 12 comparison, Model 11 would be the best prediction system. Thus, if a common regression line using the Technical composite as the aptitude measure were used in the prediction of History course grade, White seniors would be consistently underpredicted on this criterion while Black seniors would be consistently overpredicted.

Foreign Language

Freshmen 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The ASVAB Technical composite as the aptitude predictor variable showed statistically significant intercept differences in the prediction equations for the two freshmen gender groups. The results showed an R^2 change of .073 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the aptitude predictor variable, freshmen females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

The use of this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences in the prediction equations for the White, Black and Hispanic ethnic groups. Therefore, Model 12, containing the unit vector and the Technical composite score, could be the best prediction equation for this sample's Foreign Language grades.

Freshmen 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. When the model comparisons were made for gender group differences, using the Technical composite within the equations, the results showed statistically significant slope differences between the male and female regression lines. The R^2 change for the Model 7 and Model 8 comparison was approximately .011 ($p \leq .01$), with Model 7 being the best prediction equation for this sample's Foreign Language grade. Thus, the change in the Foreign Language grade per unit change in the Technical composite was significantly different for freshmen males and females.

When the model comparisons were made for ethnic group differences, using the Technical composite within the equations, the results showed no statistically significant slope or intercept differences between the White, Black and Hispanic regression lines. Model 12, which contained only the unit vector and the Technical composite score in the prediction equation, could be used in the prediction of Foreign Language course grades obtained by freshmen during this school year.

Sophomores 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. Again, the Technical prediction equations showed statistically significant slope differences between the male and female regression lines. The R^2 change for the Model 7 and Model 8 comparison was approximately .015 ($p\leq.01$), with Model 7 being the best prediction equation for this sample's Foreign Language grade. The change in the Foreign Language grade per unit change in the Technical composite was significantly different for sophomore males and females.

When the model comparisons were made for ethnic group differences using of this Technical composite in the prediction equations, the results showed no statistically significant slope or intercept differences between the White, Black and Hispanic regression lines. Model 12, which contained only the unit vector and the Technical composite score in the prediction equation, could be used in the prediction of Foreign Language course grades obtained by sophomores during this school year.

Sophomores 1985-86. Using the ASVAB Technical composite as the aptitude predictor in the equations showed statistically significant intercept differences in the prediction equations for the two sophomore gender groups and resulted in an R^2 change of .069 ($p\leq.01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite sophomore females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

The use of this ASVAB composite score in the prediction equations resulted in no statistically significant slope or intercept differences for the White and Nonwhite ethnic group members. Thus, Model 12, which contained only the unit vector and the Technical composite score in the prediction equation, could be used in the prediction of Foreign Language course grades obtained by sophomores during this school year.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White

and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The Technical prediction equations resulted in statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .080 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Foreign Language grade. Thus, using this predictor composite, junior females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

When testing for ethnic group differences, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Hispanic ethnic group members. Thus, Model 12, which contained only the unit vector and the Technical composite score in the prediction equation, could be used in the prediction of Foreign Language course grades obtained by juniors during this school year.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Hispanic ethnic group differences were studied by not including the gender variables in the equations. Again, the Technical prediction equations resulted in statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .032 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Foreign Language grade. Thus, using this predictor composite, senior females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

The Technical composite prediction equations resulted in no statistically significant slope or intercept differences for the two ethnic groups. Model 12 could be used in the prediction of Foreign Language course grade for these individuals.

Typing and Word Processing

Freshmen 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The Technical prediction equations resulted in statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .037 ($p \leq .01$), with Model 8 being the

best prediction equation for this sample's Typing grade. Thus, using this predictor composite, freshmen females would be consistently underpredicted in their Typing grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

When testing for ethnic group differences, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White, Black and Hispanic ethnic group members. Thus, Model 12, which contained only the unit vector and the Technical composite score in the prediction equation, could be used in the prediction of Typing course grades obtained by freshmen during this school year.

Freshmen 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The Technical prediction equations resulted in statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .044 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Typing grade. Thus, using this predictor composite, freshmen females would be consistently underpredicted in their Typing grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

When testing for ethnic group differences, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Hispanic ethnic group members. Thus, Model 12, which contained only the unit vector and the Technical composite score in the prediction equation, could be used in the prediction of Typing course grades obtained by freshmen during this school year.

Sophomores 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The results again showed statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .062 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Typing grade. Thus, using this predictor composite, sophomore females would be consistently underpredicted in their Typing grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Again, when testing for ethnic group differences, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White, Black and Hispanic ethnic group members. Thus, Model 12, which contained only the unit vector and the Technical composite score in the prediction equation, could be used in the prediction of Typing course grades obtained by sophomores during this school year.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. The Technical prediction equations showed statistically significant slope differences between the male and female regression lines. The R^2 change for the Model 7 and Model 8 comparison was approximately .027 ($p \leq .01$), with Model 7 being the best prediction equation for this sample's Typing grade. The change in the Typing grade per unit change in the Technical composite was significantly different for sophomore males and females.

Using the Technical composite as the aptitude predictor variable, the results showed no statistically significant slope or intercept differences for the ethnic group members. Again, Model 12 could be used in the prediction of Typing course grade for these sophomores.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. As in the sophomore 1984-85 sample, the results showed statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .102 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Typing grade. Thus, using this predictor composite, junior females would be consistently underpredicted in their Typing grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Again, when testing for ethnic group differences, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Black ethnic group members. Thus, Model 12, which contained only the unit vector and the Technical composite score in the prediction equation, could be used in the prediction of Typing course grades obtained by juniors during this school year.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White

and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. As in the previous sample, the results showed statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .057 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Typing grade. Thus, using this predictor composite, junior females would be consistently underpredicted in their Typing grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Statistically significant intercept differences also resulted between the White and Nonwhite ethnic subgroups. With an R^2 change of .035 ($p \leq .01$) for the Model 11 vs Model 12 comparison, Model 11 would be the best prediction system. Thus, if a common regression line using the Technical composite as the aptitude measure were used in the prediction of Typing course grade, White juniors would be consistently underpredicted on this criterion while Nonwhite juniors would be consistently overpredicted.

Seniors 1984-85. This sample tested only for gender group differences. The Technical composite equations resulted in statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .035 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Typing grade. Thus, using this predictor composite, senior females would be consistently underpredicted in their Typing grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

Accounting and Bookkeeping

Sophomores 1985-86. This sample tested only for gender group differences. The use of the ASVAB Technical composite as the predictor variable showed statistically significant slope differences in the prediction equations for the two sophomore gender groups and resulted in an R^2 change of .026 ($p \leq .01$) for the Model 7 vs Model 8 comparison. Therefore, Model 7 would be the best prediction equation for this sample. The change in the Accounting grade per unit change in the Technical composite was significantly different for sophomore males and females.

Home Economics

Freshmen 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. The prediction equations with the ASVAB Technical composite showed statistically significant intercept differences in the prediction equations for

the two freshmen gender groups and resulted in an R^2 change of .090 ($p\leq.01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, freshmen females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB Technical composite, the results showed statistically significant intercept differences in the prediction equations for the two ethnic groups. An R^2 change of .091 ($p\leq.01$) for the Model 11 vs Model 12 comparison was evidenced; and Model 11 could be used in the prediction of Home Economics course grade for these freshmen. Using this predictor composite, freshmen Whites would be consistently underpredicted in their Home Economics grades if the common regression line were used, while freshmen Blacks would be consistently overpredicted if a common regression line were used.

<u>Freshmen 1985-86</u>. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Using the Technical composite as a predictor variable, the results showed statistically significant intercept differences for these two freshmen gender groups and resulted in an R^2 change of .127 ($p\leq.01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the aptitude measure, freshmen females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB Technical composite, the results showed no statistically significant slope or intercept differences in the prediction equations for the two ethnic groups. Model 12 could be used in the prediction of Home Economics course grade for these freshmen.

<u>Sophomore 1984-85</u>. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The prediction equations with the ASVAB Technical composite showed statistically significant intercept differences in the prediction equations for the two gender groups and resulted in an R^2 change of .094 ($p\leq.01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, sophomore females would be consistently

underpredicted in their Home Economics grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB Technical composite, the results showed statistically significant intercept differences in the prediction equations for the two ethnic groups. An R^2 change of .058 ($p \leq .01$) for the Model 11 vs Model 12 comparison was evidenced; and Model 11 could be used in the prediction of Home Economics course grade for these sophomores. Using this predictor composite, White sophomores would be consistently underpredicted in their Home Economics grades if the common regression line were used, while Nonwhite sophomores would be consistently overpredicted if a common regression line were used.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The use of the Technical composite prediction equations resulted in statistically significant intercept differences for the gender group members and resulted in an R^2 change of .091 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, sophomore females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB Technical composite, the results showed no statistically significant slope or intercept differences in the prediction equations for the two ethnic groups. Model 12 could be used in the prediction of Home Economics course grade for these sophomores.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. As in the junior 1985-86 sample, the Technical composite equations resulted in statistically significant intercept differences for the gender group members. An R^2 change of .076 ($p \leq .01$) was obtained for the Model 8 vs Model 9 comparison; therefore, Model 8 would be the best prediction equation for this sample. Using this composite senior females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

The tests for ethnic group differences were conducted using the ASVAB Technical composite, and the results showed no statistically significant slope or intercept differences in the prediction equations for the two ethnic groups. Model 12 could be used in the prediction of Home Economics course grade for these seniors.

Computer Programming

Juniors 1984-85. This sample tested only for gender group differences. Again, using the Technical composite as a predictor variable, the results showed statistically significant intercept differences for the gender group members. An R^2 change of .091 ($p \leq .01$) was obtained for the Model 8 vs Model 9 comparison; therefore, Model 8 would be the best prediction equation for this sample. Using this composite junior females would be consistently underpredicted in their Computer Programming grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Seniors 1984-85. As in the previous Computer Programming samples, this sample tested for gender group differences. The Technical composite prediction equations resulted in no statistically significant slope or intercept differences for the gender groups. Thus, Model 9, which contained the unit vector and the ASVAB Technical composite, could be used in the prediction of Computer Programming course grades obtained by seniors for this year.

Table 14. Summary of Equity Findings for Prediction of High School Course Grades by Technical Composite

Course	Sex	Ethnicity	Sex*Ethnicity
English I-IV			
Fresh 84-85	S	E	NS
Fresh 85-86	I	I	NS
Soph 84-85	S	I	NS
Soph 85-86	S	I	NS
Jr 84-85	S	I	NS
Jr 85-86	S	I	NS
Sr 84-85	S	I	NS
General Math			
Fresh 84-85	I	E	NS
Soph 84-85	E	E	NS
Jr 85-86	I	E	NS
Sr 84-85	E	E	NS

Note. NS = Not significant; I = Intercept differences; S = Slope differences; E = Equitable test, no significant slope or intercept differences found; NT = Not tested due to small sample sizes.

Table 14. (Continued)

Course	Sex	Ethnicity	Sex*Ethnicity
Algebra			
Fresh 84-85	I	E	NS
Fresh 85-86	I	I	NS
Soph 84-85	I	E	NS
Soph 85-86	I	E	NS
Jr 85-86	E	I	NS
Geometry			
Fresh 85-86	I	I	NS
Soph 84-85	I	E	NS
Soph 85-86	I	I	NS
Jr 84-85	I	E	NS
Jr 85-86	E	I	NS
Sr 84-85	E	E	NS
General Science			
Fresh 84-85	NS	NS	I
Fresh 85-86	I	E	NS
Soph 84-85	I	E	NS
Soph 85-86	I	I	NS
Jr 85-86	I	E	NS
Sr 84-85	I	NT	NS
Biology			
Fresh 84-85	I	E	NS
Fresh 85-86	I	E	NS
Soph 84-85	S	E	NS
Soph 85-86	S	E	NS
Jr 84-85	I	E	NS
Jr 85-86	I	NT	NS
Sr 84-85	I	I	NS
Chemistry			
Soph 84-85	I	NT	NS
Jr 84-85	I	E	NS
Sr 84-85	E	E	NS
Government			
Fresh 84-85	I	NT	NS
Soph 85-86	I	I	NS
Jr 84-85	I	I	NS
Jr 85-86	S	E	NS
Sr 84-85	I	E	NS
History			
Fresh 84-85	I	E	NS
Fresh 85-86	I	I	NS
Soph 84-85	I	I	NS
Soph 85-86	S	I	NS
Jr 84-85	S	I	NS
Jr 85-86	I	I	NS
Sr 84-85	I	I	NS
Foreign Language			
Fresh 84-85	I	E	NS
Fresh 85-86	S	E	NS
Soph 84-85	S	E	NS
Soph 85-86	I	E	NS
Jr 85-86	I	E	NS
Sr 84-85	I	E	NS

Note. NS = Not significant; I = Intercept differences; S = Slope differences; E = Equitable test, no significant slope or intercept differences found; NT = Not tested due to small sample sizes.

Table 14. (Concluded)

Course	Sex	Ethnicity	Sex*Ethnicity
Typing			
Fresh 84-85	I	E	NS
Fresh 85-86	I	E	NS
Soph 84-85	I	E	NS
Soph 85-86	S	E	NS
Jr 84-85	I	E	NS
Jr 85-86	I	I	NS
Sr 84-85	I	NT	NS
Accounting			
Soph 85-86	S	NT	NS
Home Economics			
Fresh 84-85	I	I	NS
Fresh 85-86	I	E	NS
Soph 84-85	I	I	NS
Soph 85-86	I	E	NS
Sr 84-85	I	E	NS
Computer Program			
Jr 84-85	I	NT	NS
Sr 84-85	E	NT	NS

Note. NS = Not significant; I = Intercept differences; S = Slope differences; E = Equitable test, no significant slope or intercept differences found; NT = Not tested due to small sample sizes.

General Composite

English I - IV

Freshmen 1984-85. Using the General composite with this sample, the results showed statistically significant differences between the Model 2 vs Model 4 and the Model 2 vs Model 5 comparisons. However, the Model 2 vs Model 6 comparsion showed that these two models were not significantly different. Model 6 included the unit vector, the General score by sex two-way interaction predictor variables, and the sex by ethnicity two-way interaction predictor variables. With Model 6 as the best prediction equation for this sample's English grade, no differential validiy was evidenced for the ethnicity by General score two-way interaction variables, with ethnicity being defined as White, Black and Hispanic group membership.

Freshmen 1985-86. This composite showed statistically significant intercept differences in the prediction equations for the two freshmen gender groups and resulted in an R^2 change of .049 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the General composite as the predictor variable freshmen females would be consistently underpredicted in their English grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

When the model comparisons were made for ethnic group differences, using this ASVAB composite resulted in no statistically significant slope or intercept differences among the White, Black and Hispanic regression lines. Thus, Model 12, which contained the unit vector and the General composite score, could be used in the prediction of English grades obtained by freshmen during this school year.

Sophomores 1984-85. When the model comparisons were made for gender group differences, using the General composite resulted in statistically significant slope differences between the male and female regression lines. The R^2 change for the Model 7 and Model 8 comparison was approximately .015 ($p \leq .001$), with Model 7 being the best prediction equation for this group's English grade. Thus, the change in the English grade per unit change in the ASVAB General composite was significantly different for this year's sophomore males and females.

Using this composite score as the aptitude measure resulted in no statistically significant slope or intercept differences for White, Black and Hispanic sophomores which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the General composite score in the prediction equation, could be used in the prediction of English course grade for these sophomores.

Sophomores 1985-86. The model comparisons for gender group differences using the General composite showed statistically significant slope differences between the male and female regression lines, with Model 7 as the prediction equation to be used for this sample. The R^2 change for the Model 7 and Model 8 comparison was approximately .011 ($p \leq .001$). Thus, the change in the English grade per unit change in the ASVAB General composite was significantly different for these sophomore males and females.

Statistically significant intercept differences resulted among the White, Black and Hispanic ethnic subgroups. With an R^2 change of .007 ($p \leq .001$) for the Model 11 vs Model 12 comparison, Model 11 would be the best prediction system. Thus, if a common regression line using the General composite were used in the prediction of English course grade, White and Hispanic sophomores would be consistently underpredicted on the criterion while Black sophomores would be consistently overpredicted.

Juniors 1984-85. When the model comparisons were made for gender group differences, using the General composite resulted in statistically significant slope differences between the male and female regression lines. The R^2 change for the Model 7 and Model 8 comparison was approximately .012 ($p \leq .001$), with Model 7 being the best prediction equation for this group's English grade. Thus, the change in the English grade per unit change in the ASVAB General composite was significantly different for these junior males and females.

Using this ASVAB composite score as the aptitude predictor variable resulted in no statistically significant slope or intercept differences for White, Black and Hispanic juniors. Thus, Model 12, which contained only the unit vector and the General composite score in the prediction equation, could be used in the prediction of English course grade for these individuals.

Juniors 1985-86. As in the 1984-85 school year, using the General composite in the equations showed statistically significant slope differences between the male and female regression lines. The R^2 change for the Model 7 and Model 8 comparison was approximately .012 ($p \leq .001$), with Model 7 being the best prediction equation for English grade. Thus, the change in the English grade per unit change in the ASVAB General composite was also significantly different for these junior males and females.

Again, using this composite score resulted in no statistically significant slope or intercept differences for the ethnic groups, with this sample including only White and Black individuals. Thus, Model 12, which contained only the unit vector and the General composite score in the prediction equation, could be used in the prediction of English course grade for these juniors.

Seniors 1984-85. The ASVAB General composite as the aptitude predictor showed statistically significant slope differences in the prediction equations for the two senior gender groups and resulted in an R^2 change of .007 ($p \leq .001$) for the Model 7 vs Model 8 comparison. Therefore, Model 7 would be the best prediction equation for this sample. The change in the English grade per unit change in the ASVAB General composite was significantly different for these senior males and females.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the White, Black and Hispanic ethnic group members. Model 12 could be used in the prediction of English course grades obtained by seniors during this school year.

General Math

Freshmen 1984-85. This sample, using the General composite score as the aptitude predictor variable, showed statistically significant intercept differences in the prediction equations for the two freshmen gender groups and resulted in an R^2 change of .010 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the General composite as the predictor variable freshmen females would be consistently underpredicted in their General Math grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

Using this composite in the prediction equations resulted in no statistically significant slope or intercept differences for the gender group members or the White, Black and Hispanic ethnic group members. Model 12, containing only the unit vector and the General composite score in the prediction equation, could be used in the prediction of General Math course grade for these freshmen.

Freshmen 1985-86. For this sample, the results showed no statistically significant slope or intercept differences for the gender group members or the White and Black ethnic group members. Models 9 or 12, containing only the unit vector and the General composite score in the prediction equation, could be used in the prediction of General Math course grade for these freshmen.

Sophomores 1984-85. This sample also resulted in no statistically significant slope or intercept differences for the gender group members or the White, Black and Hispanic ethnic group members. Models 9 or 12, which contained only the unit vector and the General composite score in the prediction equation, could be used in the prediction of General Math course grades obtained during this year by sophomores.

Sophomores 1985-86. This sample, using the General composite in the equations, showed statistically significant intercept differences between the male and female gender subgroups. With an R^2 change of .039 ($p \leq .001$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction system. Thus, if a common regression line using the General composite were used in the prediction of General Math course grade, female sophomores would be consistently underpredicted on the criterion while male sophomores would be consistently overpredicted.

The results also showed no statistically significant slope or intercept differences between the White and Black ethnic group members regression lines. Thus, Model 12, containing the unit vector and the General composite score, could be used in predicting General Math course grade for these individuals.

Juniors 1984-85. In this 1984-85 sample, using the General composite score as the aptitude predictor variable, showed no statistically significant slope or intercept differences for the gender or White and Black ethnic group members. Thus, Models 9 or 12, which contained only the unit vector and the General composite score in the prediction equation, could be used in the prediction of General Math course grades obtained in 1984-85 by juniors.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. Using the General composite score as the aptitude predictor variable, showed

statistically significant intercept differences between the male and female gender subgroups. With an R^2 change of .039 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction system. Thus, if a common regression line using the General composite were used in the prediction of General Math course grade, female juniors would be consistently underpredicted on the criterion while male juniors would be consistently overpredicted.

Using the General composite as the aptitude predictor variable resulted in no statistically significant slope or intercept differences for the ethnic group members. Thus, Model 12, containing the unit vector and the General composite score, could be used in predicting General Math course grade for these individuals.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. The results showed no statistically significant slope or intercept differences for the gender group or ethnic group members. Again, Model 9 or 12 could be used in the prediction of General Math course grades obtained in 1984-85 by seniors.

Algebra

Freshmen 1984-85. Using the ASVAB General composite as the predictor variable, the results showed statistically significant intercept differences in the prediction equations for the two gender groups with an R^2 change of .041 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, freshmen females would be consistently underpredicted in their Algebra grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the ethnic group members, which in this sample were defined as White and Nonwhite. Thus, Model 12, which contained only the unit vector and the General composite score in the prediction equation, could be used in the prediction of Algebra course grade for freshmen during this school year.

Freshmen 1985-86. With the General composite as the aptitude measure the results showed statistically significant intercept differences in the prediction equations for the two gender groups. These comparisons resulted in R^2 change of .054 ($p \leq .001$) for the Model 8 vs Model 9 tests. Therefore, Model 8 would be the best prediction equation for this sample. Using this

composite, freshmen females would be consistently underpredicted in their Algebra grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the ethnic group members, which in this sample were defined as White and Nonwhite. Thus, Model 12, which contained only the unit vector and the General composite score in the prediction equation, could be used in the prediction of Algebra course grade for freshmen during this school year.

Sophomores 1984-85. The use of this composite resulted in statistically significant intercept differences in the prediction equations for the gender groups, with an R^2 change of .032 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the General composite as the predictor variable, sophomore females would be consistently underpredicted in their Algebra grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score, the results showed no statistically significant slope or intercept differences for White and Nonwhite sophomores, which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the General composite score in the prediction equation, could be used in the prediction of Algebra course grade for these sophomores.

Sophomores 1985-86. In this sample, using the General composite, the results also showed statistically significant intercept differences for the gender group members. These tests resulted in an R^2 change of .022 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, sophomore females would be consistently underpredicted in their Algebra grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Using the General composite as the predictor resulted in no statistically significant slope or intercept differences for the White and Nonwhite ethnic group members. Thus, Model 12, which contained only the unit vector and the General composite score in the prediction equation, could be used in the prediction of Algebra course grades obtained in 1985-86 by sophomores.

Juniors 1984-85. In this 1984-85 sample, using the General composite score as the aptitude predictor variable, the results showed statistically significant intercept differences for the gender group members. These tests resulted in an R^2 change of

.044 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, junior females would be consistently underpredicted in their Algebra grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the ethnic group members, which in this sample were defined as White and Black. Thus, Model 12, which contained only the unit vector and the General composite score in the prediction equation, could be used in the prediction of Algebra course grade for juniors during this school year.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Using the General composite as t aptitude predictor resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. Again, Model 9 or 12 could be used in the prediction of Algebra course grade for these juniors.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Using the General composite in the equations resulted in statistically significant intercept differences for the gender group members. With an R^2 change of .049 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction system for these seniors. Using this composite, senior females would be consistently underpredicted in their Algebra grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the ethnic group members, which in this sample were defined as White and Nonwhite. Thus, Model 12 could be used in the prediction of Algebra course grades obtained by seniors in the 1984-85 school year.

Geometry

Freshmen 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied

by not including the gender variables in the equations. These tests resulted in an R^2 change of .015 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, freshmen females would be consistently underpredicted in their Geometry grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

Using the General composite in the prediction equations resulted in no statistically significant slope or intercept differences for the three ethnic groups. Thus, Model 12 could be used in the prediction of Geometry course grades obtained by freshmen in the 1985-86 school year.

Sophomores 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. Using the General composite in the equations resulted in statistically significant intercept differences for the gender group members. With an R^2 change of .021 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction system for these sophomores. Using this composite, sophomore females would be consistently underpredicted in their Geometry grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

As in the Freshmen sample, using the General composite resulted in no statistically significant slope of intercept differences for the three ethnic groups. Model 12 could be used in the prediction of Geometry course grade for these sophomores.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. With the General composite as the aptitude measure, the results showed statistically significant intercept differences for the gender group members. With an R^2 change of .040 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction equation for Geometry course grade for these sophomores. Using this composite, sophomore females would be consistently underpredicted in their Geometry grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

When the model comparisons were made for ethnic group differences, using the General composite within the equations, the results showed statistically significant slope differences between the White and Black regression lines. The R^2 change for the Model 10 and Model 11 comparison was approximately .022

($p \leq .01$), with Model 10 being the best prediction equation for this sample's Geometry grade. Thus, the change in the Geometry grade per unit change in the ASVAB General composite was significantly different for these White and Black sophomores.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. With the General composite as the aptitude measure, the results showed statistically significant intercept differences for the gender group members. With an R^2 change of .042 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction equation for Geometry course grade for these sophomores. Using this composite, sophomore females would be consistently underpredicted in their Geometry grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

As in the Freshmen sample, using the General composite resulted in no statistically significant slope of intercept differences for the three ethnic groups. Model 12 could be used in the prediction of Geometry course grade for these sophomores.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. With the General composite as the aptitude measure, the results showed no statistically significant slope or intercept differences for the gender group members. Thus, Model 9 could be used in the prediction of Geometry course grades obtained by juniors during the 1985-86 school year.

When the model comparisons were made for ethnic group differences using the General composite, the results showed statistically significant slope differences for the gender group members. With an R^2 change of .044 ($p \leq .01$) for the Model 10 vs Model 11 comparison, Model 10 would be the best prediction equation for Geometry course grade for these juniors. The change in the Geometry grade per unit change in the ASVAB General composite was significantly different for these White and Nonwhite juniors.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. In this sample, the General composite equations resulted in no statistically

significant slope or intercept differences for the gender group or ethnic group members. Model 9 or 12 could be used in the prediction of Geometry course grade for these seniors.

Calculus

Juniors 1985-86. This was the only Calculus sample which possessed more than 50 cases, and only gender group differences were tested. The General composite, as the predictor variable, resulted in no statistically significant slope or intercept differences for the gender group members. Model 9 could be used in the prediction of Calculus course grade for these individuals.

General Science

Freshmen 1984-85. Using the General composite with this sample, the results showed no statistically significant differences between the Model 2 vs Model 4 comparison. Model 4 included the unit vector, the General composite score, and the sex by ethnicity two-way interaction predictor variables, with ethnicity membership being defined as White, Black and Hispanic. With Model 4 as the best prediction equation for this sample's General Science grade, no differential validity was evidenced for the ethnicity by General score two-way interaction variables or the sex by General score two-way interaction variables.

Freshmen 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. Using the General composite as the aptitude predictor variable resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. Model 9 or 12, which contained the unit vector and the General composite score, could be used in the prediction of General Science course grades obtained by freshmen in 1985-86.

Sophomores 1984-85. The use of this composite resulted in statistically significant intercept differences in the prediction equations for the gender groups, with an R^2 change of .032 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the General composite as the predictor variable, sophomore females would be consistently underpredicted in their General Science grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score, the results showed no statistically significant slope or intercept differences for White and Nonwhite sophomores, which were the ethnic groups

defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the General composite score in the prediction equation, could be used in the prediction of General Science course grade for these sophomores.

<u>Sophomores 1985-86</u>. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. Again, using the General composite as the aptitude aptitude measure resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. Model 9 or 12 could be used in the prediction of General Science course grade for these sophomores.

<u>Juniors 1984-85</u>. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. Using the General composite within the prediction equation resulted in no statistically significant slope or intercept differences for the gender group members. Again, Model 9 could be used in the prediction of General Science course grade for these juniors.

With the General composite as the aptitude measure, the results showed statistically significant intercept differences for the two ethnic subgroups. With an R^2 change of .062 ($p \leq .01$) for the Model 11 vs Model 12 comparison, Model 11 would be the best prediction equation for Geometry course grade for these juniors. Using this composite, White juniors would be consistently underpredicted in their Geometry grades if the common regression line were used, while Black juniors would be consistently overpredicted if a common regression line were used.

<u>Juniors 1985-86</u>. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Using the General composite, the results showed statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .021 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's General Science grade. Thus, using this composite, sophomore females would be consistently underpredicted in their General Science grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

This General composite prediction equation resulted in no statistically significant slope or intercept differences for the ethnic group members. Thus, Model 12 could be used in the prediction of General Science course grades obtained by juniors in 1985-86.

Seniors 1984-85. This sample tested only for gender group differences. Using the General composite equation resulted in no statistically significant slope or intercept differences for the gender groups. Thus, Model 9, which contained the unit vector and the ASVAB General composite, could be used in the prediction of General Science course grade for these seniors.

Biology I - II

Freshmen 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Using the General composite within the prediction equation resulted in statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .025 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Biology grade. Thus, using this composite, freshmen females would be consistently underpredicted in their Biology grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

This General composite equation also resulted in no statistically significant slope or intercept differences for the ethnic group members. Again, Model 12 could be used in the prediction of Biology course grades obtained by freshmen in 1984-85.

Freshmen 1985-86. The use of this composite resulted in statistically significant intercept differences in the prediction equations for the two freshmen gender groups, with an R^2 change of .037 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the General composite as the predictor variable, freshmen females would be consistently underpredicted in their Biology grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score, the results showed no statistically significant slope or intercept differences for White and Black freshmen, which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the General composite score in the prediction equation, could be used in the prediction of Biology course grade for these freshmen.

Sophomores 1984-85. Using the General composite with this sample, the results showed statistically significant differences between the Model 2 vs Model 4 and the Model 2 vs Model 5 comparisons. However, the Model 2 vs Model 6 comparsion showed that these two models were not significantly different. Model 6 included the unit vector, the General score by sex two-way interaction predictor variables, and the sex by ethnicity two-way interaction predictor variables. With Model 6 as the best prediction equation for this sample's Biology grade, no differential validiy was evidenced for the ethnicity by General score two-way interaction variables, with ethnicity being defined as White, Black and Hispanic group membership.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. These tests resulted statistically significant slope differences between the gender group members and an R^2 change of .016 ($p \leq .01$) for the Model 7 vs Model 8 comparison. Therefore, Model 7 would be the best prediction equation for this sample. Thus, the change in the Biology grade per unit change in the General composite was significantly different for freshmen males and females.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the three ethnic groups. Thus, Model 12, which contained only the unit vector and the General composite score in the prediction equation, could be used in the prediction of Biology course grade for these sophomores during this school year.

Juniors 1984-85. The use of this composite resulted in statistically significant intercept differences in the prediction equations for the two junior gender groups, with an R^2 change of .045 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the General composite as the predictor variable, junior females would be consistently underpredicted in their Biology grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score, the results showed no statistically significant slope or intercept differences for White and Nonwhite juniors, which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the General composite score in the prediction equation, could be used in the prediction of Biology course grade for these juniors.

Juniors 1985-86. This sample tested only for gender group differences. Using the General composite as the predictor variable resulted in statistically significant intercept differences for the gender groups. With an R^2 change of .065 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction equation of Biology course grade for these juniors. Using the General composite as the predictor variable, junior females would be consistently underpredicted in their Biology grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. The use of this General composite in the equations resulted in statistically significant intercept differences for the gender members. With an R^2 change of .043 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction equations for these seniors. Using this composite, senior females would be consistently underpredicted in their Biology grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the General composite as the predictor composite, the results showed statistically significant intercept differences in the prediction equations for the White and Black ethnic groups, with an R^2 change of .036 ($p \leq .01$) for the Model 11 vs Model 12 comparison. Therefore, Model 11 would be the best prediction equation for this sample. Using the General composite as the predictor variable, White seniors would be consistently underpredicted in their Biology grades if the common regression line were used, while Black seniors would be consistently overpredicted if a common regression line were used.

Chemistry I - II

Freshmen 1985-86. This sample tested only for gender group differences. Using the General composite in the equations, the results showed no statistically significant slope or intercept differences for the gender groups. Thus, Model 9, which contained only the unit vector and the General composite score in the prediction equation, could be used in the prediction of Chemistry course grade for these freshmen.

Sophomores 1984-85. This sample also tested only for gender group differences. Again, with the General composite in the equations, the results showed statistically significant intercept differences for the gender groups. With an R^2 change of .038 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 could be

used in the prediction of Chemistry course grades obtained by these sophomores. Sophomore females would be consistently underpredicted in their Chemistry grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Sophomores 1985-86. This sample tested only for gender group differences. Using the General composite as the predictor variable, the results indicated statistically significant intercept differences for the gender groups. With an R^2 change of .058 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction system of Chemistry course grade for these sophomores. Using this composite, sophomore females would be consistently underpredicted in their Chemistry grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The use of this General composite in the equations resulted in statistically significant intercept differences for the gender and two ethnic group members. With R^2 changes of .074 and .021 ($p \leq .01$) for the Model 8 vs Model 9 and the Model 11 vs Model 12 comparisons, Models 8 and 11 would be the best prediction equations for these juniors. Using this composite, junior females would be consistently underpredicted in their Chemistry grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used. Conversely, if a common regression line using the General composite as the aptitude measure were used in the prediction of Chemistry course grade, White juniors would be consistently underpredicted on this criterion while Nonwhite juniors would be consistently overpredicted.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The use of this composite resulted in statistically significant intercept differences in the prediction equations for the two junior gender groups, with an R^2 change of .086 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the General composite as the predictor variable, junior females would be consistently underpredicted in their Chemistry grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score, the results again showed no statistically significant slope or intercept differences for White and Nonwhite juniors, which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the General composite score in the prediction equation, could be used in the prediction of Chemistry course grade for these juniors.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Using the General composite, the results showed no statistically significant slope or intercept differences for the gender or White and Nonwhite ethnic group members. Model 9 or 12 could be used in the prediction of Chemistry course grades obtained by seniors during this school year.

Physics I - II

Juniors 1985-86. This sample tested only for gender group differences. The use of this composite resulted in statistically significant intercept differences in the prediction equations for the two junior gender groups, with an R^2 change of .051 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the General composite as the predictor variable, junior females would be consistently underpredicted in their Physics grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Seniors 1984-85. This sample tested only for gender group differences. The General composite equations again resulted in statistically significant intercept differences for the gender groups. An R^2 change of .074 ($p \leq .01$) for the Model 8 vs Model 9 comparison was evidenced; therefore, Model 8 would be the best prediction equation for this sample. Using the General composite as the predictor variable, senior females would be consistently underpredicted in their Physics grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

Government and Civics

Freshmen 1984-85. This sample tested only for gender group differences. The General composite equations again resulted in no statistically significant intercept differences for the gender groups. Model 9, containing the unit vector and the General composite score, could be used in the prediction of Government course grade for these individuals.

Sophomore 1984-85. This sample tested for gender group differences. Using the General composite as the predictor variable, the results showed statistically significant intercept differences for the gender groups. An R^2 change of .039 ($p \leq .01$) for the Model 8 vs Model 9 comparison was evidenced; therefore, Model 8 would be the best prediction equation for this sample. Using the General composite as the predictor variable, sophomore females would be consistently underpredicted in their Government grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The use of this General composite in the equations resulted in statistically significant slope differences for the gender group members. With an R^2 change of .016 ($p \leq .01$) for the Model 7 vs Model 8 comparison, Model 7 would be the best prediction equation for these sophomores. Thus, the change in the Government grade per unit change in the General composite was significantly different for sophomore males and females.

The use of this General composite in the equations resulted in statistically significant intercept differences for the two ethnic group members. With R^2 change of .019 ($p \leq .01$) for the Model 11 vs Model 12 comparison, Model 11 would be the best prediction equations for these sophomores. Using this composite, White sophomores would be consistently underpredicted on this criterion if the common regression line were used, while Hispanic sophomores would be consistently overpredicted.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. However, the use of this General composite in the equations resulted in statistically significant intercept differences for only the gender subgroup. With R^2 change of .034 ($p \leq .01$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction equation for these juniors. Using this composite, junior females would be consistently underpredicted in their Government grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score, the results showed no statistically significant slope or intercept differences for White and Nonwhite juniors, which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained

only the unit vector and the General composite score in the prediction equation, could be used in the prediction of Government course grade for these juniors.

Juniors 1985-86. This sample, using the General composite score as the aptitude predictor variable, resulted in statistically significant intercept differences for the gender group members. With an R^2 change of .049 ($p \leq .001$) for the Model 8 vs Model 9 comparison, Model 8 was the best prediction equation for this sample. Using this composite, junior females would be consistently underpredicted in their Government grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score, the results showed no statistically significant slope or intercept differences for White and Black juniors, which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the General composite score in the prediction equation, could be used in the prediction of Government course grade for these juniors.

Seniors 1984-85. Similar to some of the previous samples, using the General composite score as the aptitude predictor variable, resulted in statistically significant intercept differences for the gender group members. With R^2 change of .023 ($p \leq .001$) for the Model 8 vs Model 9 comparison, Model 8 would be the best prediction equation for these seniors. Using this composite, senior females would be consistently underpredicted in their Government grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

When ethnic group differences were investigated using this composite, the results showed no statistically significant slope or intercept differences for the White and Black ethnic group members. Again, Model 12, which contained only the unit vector and the General composite score in the prediction equation, could be used in the prediction of Government course grades for these seniors.

History

Freshmen 1984-85. The use of the ASVAB General composite as the aptitude predictor variable showed statistically significant intercept differences in the prediction equations for the two freshmen gender groups and resulted in an R^2 change of .037 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, freshmen females would be consistently underpredicted in their History grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

The use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White, Black and Hispanic ethnic group members. Thus, Model 12, which contained only the unit vector and the General composite score in the prediction equation, could be used in the prediction of History course grades obtained by freshmen during this school year.

Freshmen 1985-86. This sample, using the General composite score as the aptitude predictor variable, resulted in statistically significant intercept differences in the prediction equations for the two freshmen gender groups and resulted in an R^2 change of .015 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, freshmen females would be consistently underpredicted in their History grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

The use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Black ethnic group members. Thus, Model 12, which contained only the unit vector and the General composite score in the prediction equation, could be used in the prediction of History course grades obtained by freshmen during this school year.

Sophomores 1984-85. Using the General composite score as the aptitude predictor variable, the results showed statistically significant intercept differences in the prediction equations for the two sophomore gender groups and resulted in an R^2 change of .028 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, sophomore females would be consistently underpredicted in their History grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Again, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Black ethnic group members. Thus, Model 12, which contained only the unit vector and the General composite score in the prediction equation, could be used in the prediction of History course grades obtained by sophomores during this school year.

Sophomores 1985-86. The use of this composite resulted in statistically significant intercept differences in the prediction equations for the gender groups, with an R^2 change of .032 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the General composite as the predictor variable, sophomore

females would be consistently underpredicted in their History grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score, the results showed no statistically significant slope or intercept differences for White, Black and Hispanic sophomores, which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the General composite score in the prediction equation, could be used in the prediction of History course grade for these sophomores.

Juniors 1984-85. Like the 1985-86 freshmen sample, this sample, using the General composite score as the aptitude predictor variable, resulted in statistically significant intercept differences in the prediction equations for the two junior gender groups and resulted in an R^2 change of .049 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, junior females would be consistently underpredicted in their History grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Again, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Black ethnic group members. Thus, Model 12, which contained only the unit vector and the General composite score in the prediction equation, could be used in the prediction of History course grades obtained by juniors during this school year.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. Using the General composite score as the aptitude predictor variable, the results showed statistically significant slope differences in the prediction equations for the two junior gender groups and resulted in an R^2 change of .015 ($p \leq .01$) for the Model 7 vs Model 8 comparison. Therefore, Model 7 would be the best prediction equation for this sample. The change in the History grade per unit change in the General composite was significantly different for freshmen males and females.

The use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Black ethnic group members. Thus, Model 12, which contained only the unit vector and the General composite score in the prediction equation, could be used in the prediction of History course grades obtained by juniors during this school year.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. The use of the General composite in the prediction equations resulted in statistically significant intercept differences for the gender group members. An R^2 change of .017 ($p \leq .01$) for the Model 8 vs Model 9 comparison was evidenced. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, senior females would be consistently underpredicted in their History grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

Statistically significant intercept differences also resulted between the White and Black ethnic subgroups. With an R^2 change of .020 ($p \leq .01$) for the Model 11 vs Model 12 comparison, Model 11 would be the best prediction system. Thus, if a common regression line using the General composite as the aptitude measure were used in the prediction of History course grade, White seniors would be consistently underpredicted on this criterion while Black seniors would be consistently overpredicted.

Foreign Language

Freshmen 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The results showed an R^2 change of .071 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the aptitude predictor variable, freshmen females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

The use of this ASVAB composite score in the equations also resulted in statistically significant intercept differences in the prediction equations for the White, Black and Hispanic ethnic groups and resulted in an R^2 change of .027 ($p \leq .01$) for the Model 11 vs Model 12 comparison. Therefore, Model 11 would be the best prediction equation for this sample. Using this composite as the aptitude predictor variable, White and Hispanic freshmen would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while Black freshmen would be consistently overpredicted if a common regression line were used.

Freshmen 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. When the model comparisons were made for gender group differences, using the General composite within the equations, the results showed statistically significant slope differences between the male and female regression lines. The R^2 change for the Model 7 and Model 8 comparison was approximately .007 ($p \leq .01$), with Model 7 being the best prediction equation for this sample's Foreign Language grade. Thus, the change in the Foreign Language grade per unit change in the ASVAB General composite was significantly different for male and female freshmen.

The use of this ASVAB composite score in the equations also resulted in statistically significant intercept differences in the prediction equations for the White, Black and Hispanic ethnic groups and resulted in an R^2 change of .012 ($p \leq .01$) for the Model 11 vs Model 12 comparison. Therefore, Model 11 would be the best prediction equation for this sample. Using this composite as the aptitude predictor variable, White and Hispanic freshmen would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while Black freshmen would be consistently overpredicted if a common regression line were used.

Sophomores 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. When the model comparisons were made for gender group differences, using the General composite within the equations, the results again showed statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .104 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Foreign Language grade. Thus, sophomore females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

When the model comparisons were made for ethnic group differences using of this General composite in the prediction equations, the results also showed statistically significant intercept differences between the White, Black and Hispanic regression lines. The R^2 change for the Model 11 and Model 12 comparison was approximately .016 ($p \leq .01$), with Model 11 being the best prediction equation for this sample's Foreign Language grade. White and Hispanic sophomores would be consistently

underpredicted in their Foreign Language grades if the common regression line were used, while Black sophomores would be consistently overpredicted if a common regression line were used.

Sophomores 1985-36. Using the ASVAB General composite as the aptitude predictor in the equations showed statistically significant intercept differences in the prediction equations for the two sophomore gender groups and resulted in an R^2 change of .074 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite sophomore females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

When the model comparisons were made for ethnic group differences using of this General composite in the prediction equations, the results also showed statistically significant intercept differences between the White and Nonwhite regression lines. The R^2 change for the Model 11 and Model 12 comparison was approximately .017 ($p \leq .01$), with Model 11 being the best prediction equation for this sample's Foreign Language grade. White sopnomores would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while Nonwhite sophomores would be consistently overpredicted if a common regression line were used.

Juniors 1984-85. At first, using this corposite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The use of the General composite as a predictor measure showed statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .104 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Foreign Language grade. Thus, using this predictor composite, junior females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

When the model comparisons were made for ethnic group differences, the General predictor composite also resulted in statistically significant intercept differences for the ethnic group members. The R^2 change for the Model 11 vs Model 12 comparison was .025 ($p \leq .01$); therefore, Model 11 would be the best prediction equation for these juniors' Foreign Language course grade. Using this composite White and Hispanic juniors would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while Black juniors would be consistently overpredicted if a common regression line were used.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The General prediction equations resulted in statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .070 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Foreign Language grade. Thus, using this predictor composite, junior females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

When testing for ethnic group differences, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Hispanic ethnic group members. Thus, Model 12, which contained only the unit vector and the General composite score in the prediction equation, could be used in the prediction of Foreign Language course grades obtained by juniors during this school year.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Hispanic ethnic group differences were studied by not including the gender variables in the equations. Again, the General prediction equations resulted in statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .029 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Foreign Language grade. Thus, using this predictor composite, senior females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

The General composite prediction equations resulted in no statistically significant slope or intercept differences for the two ethnic groups. Model 12 could be used in the prediction of Foreign Language course grade for these individuals.

Secretary and Office Education

Juniors 1985-86. This sample tested only for White and Nonwhite ethnic group differences. Using the General composite as the aptitude predictor variable, the results showed no statistically significant slope or intercept differences for the

ethnic groups. Thus, Model 12, which contained the unit vector and the ASVAB General composite, could be used in the prediction of this course grade for these juniors.

Seniors 1984-85. This sample tested only for White and Nonwhite ethnic group differences. Again, using the General composite prediction equations the results showed no statistically significant slope or intercept differences for the ethnic groups. Thus, Model 12, which contained the unit vector and the ASVAB General composite, could be used in the prediction of Secretary and Office course grades obtained by these seniors.

Typing and Word Processing

Freshmen 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The General prediction equations resulted in statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .024 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Typing grade. Thus, using this predictor composite, freshmen females would be consistently underpredicted in their Typing grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

When testing for ethnic group differences, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White, Black and Hispanic ethnic group members. Thus, Model 12, which contained only the unit vector and the General composite score in the prediction equation, could be used in the prediction of Typing course grades obtained by freshmen during this school year.

Freshmen 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The General prediction equations resulted in statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .036 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Typing grade. Thus, using this predictor composite, freshmen females would be consistently underpredicted in their Typing grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

When testing for ethnic group differences, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Hispanic ethnic group members. Thus, Model 12, which contained only the unit vector and the General composite score in the prediction equation, could be used in the prediction of Typing course grades obtained by freshmen during this school year.

Sophomores 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The results again showed statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .056 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Typing grade. Thus, using this predictor composite, sophomore females would be consistently underpredicted in their Typing grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Again, when testing for ethnic group differences, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White, Black and Hispanic ethnic group members. Thus, Model 12, which contained only the unit vector and the General composite score in the prediction equation, could be used in the prediction of Typing course grades obtained by sophomores during this school year.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. The General prediction equations showed no statistically significant slope or intercept differences for the gender or ethnic group members. Again, Model 9 or 12 could be used in the prediction of Typing course grade for these sophomores.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. As in the sophomore 1984-85 sample, the results showed statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .092 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Typing grade. Thus, using this predictor composite, junior females would be consistently underpredicted in

their Typing grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Again, when testing for ethnic group differences, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Black ethnic group members. Thus, Model 12, which contained only the unit vector and the General composite score in the prediction equation, could be used in the prediction of Typing course grades obtained by juniors during this school year.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. As in the previous sample, the results showed statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .052 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Typing grade. Thus, using this predictor composite, junior females would be consistently underpredicted in their Typing grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Again, when testing for ethnic group differences, the use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White and Nonwhite ethnic group members. Thus, Model 12, which contained only the unit vector and the General composite score in the prediction equation, could be used in the prediction of Typing course grades obtained by juniors during this school year.

Seniors 1984-85. This sample tested only for gender group differences. The General composite equations resulted in statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .042 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Typing grade. Thus, using this predictor composite, senior females would be consistently underpredicted in their Typing grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

Accounting and Bookkeeping

Sophomores 1985-86. This sample tested only for gender group differences. The use of the ASVAB General composite as the predictor variable showed statistically significant intercept differences in the prediction equations for the two sophomore gender groups and resulted in an R^2 change of .061 ($p \leq .01$) for

the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, sophomore females would be consistently underpredicted in their Accounting grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Juniors 1984-85. This sample also tested for gender group differences. Again, using the General composite prediction equations, the results showed statistically significant intercept differences in the prediction equations for the two junior gender groups and resulted in an R^2 change of .121 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, junior females would be consistently underpredicted in their Accounting grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Juniors 1985-86. This sample tested for gender group differences. As in the previous sample, using the General composite prediction equations, the results showed statistically significant intercept differences in the prediction equations for the two junior gender groups and resulted in an R^2 change of .058 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, junior females would be consistently underpredicted in their Accounting grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Seniors 1984-85. Like the junior samples, this sample tested only for gender group differences. Using the General composite prediction equations, the results showed statistically significant intercept differences in the prediction equations for the two gender groups and resulted in an R^2 change of .061 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, senior females would be consistently underpredicted in their Accounting grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

Home Economics

Freshmen 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. The prediction equations with the ASVAB General composite showed statistically significant intercept differences in the prediction equations for the two freshmen gender groups and resulted in an R^2 change of .047

($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, freshmen females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB General composite, the results showed statistically significant intercept differences in the prediction equations for the two ethnic groups. An R^2 change of .061 ($p \leq .01$) for the Model 11 vs Model 12 comparison was evidenced; and Model 11 could be used in the prediction of Home Economics course grade for these freshmen. Using this predictor composite, freshmen Whites would be consistently underpredicted in their Home Economics grades if the common regression line were used, while freshmen Blacks would be consistently overpredicted if a common regression line were used.

Freshmen 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Using the General composite as a predictor variable, the results showed statistically significant intercept differences for these two freshmen gender groups and resulted in an R^2 change of .069 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the aptitude measure, freshmen females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB General composite, the results showed no statistically significant slope or intercept differences in the prediction equations for the two ethnic groups. Model 12 could be used in the prediction of Home Economics course grade for these freshmen.

Sophomore 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The prediction equations with the ASVAB General composite showed statistically significant intercept differences in the prediction equations for the two gender groups and resulted in an R^2 change of .070 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, sophomore females would be consistently

underpredicted in their Home Economics grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB General composite, the results showed statistically significant intercept differences in the prediction equations for the two ethnic groups. An R^2 change of .029 ($p \leq .01$) for the Model 11 vs Model 12 comparison was evidenced; and Model 11 could be used in the prediction of Home Economics course grade for these sophomores. Using this predictor composite, White sophomores would be consistently underpredicted in their Home Economics grades if the common regression line were used, while Nonwhite sophomores would be consistently overpredicted if a common regression line were used.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The use of the General composite prediction equations resulted in statistically significant intercept differences for the gender group members and resulted in an R^2 change of .072 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, sophomore females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB General composite, the results showed no statistically significant slope or intercept differences in the prediction equations for the two ethnic groups. Model 12 could be used in the prediction of Home Economics course grade for these sophomores.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The use of the General composite prediction equations resulted in statistically significant intercept differences for the gender group members and resulted in an R^2 change of .042 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, junior females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB General composite, the results showed no statistically significant slope or intercept differences in the prediction equations for the two ethnic groups. Model 12 could be used in the prediction of Home Economics course grade for these juniors.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Again, this sample, using the General composite equations, resulted in statistically significant intercept differences for the gender group members. An R^2 change of .138 ($p\leq.01$) for the Model 8 vs Model 9 comparison was evidenced; therefore, Model 8 would be the best prediction equation for this sample. Using this predictor composite junior females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB General composite, the results indicated no statistically significant slope or intercept differences in the prediction equations for the two ethnic groups. Model 12 could be used in the prediction of Home Economics course grade for these juniors.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. As in the junior 1985-86 sample, the General composite equations resulted in statistically significant intercept differences for the gender group members. An R^2 change of .059 ($p\leq.01$) was obtained for the Model 8 vs Model 9 comparison; therefore, Model 8 would be the best prediction equation for this sample. Using this composite senior females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

The tests for ethnic group differences were conducted using the ASVAB General composite, and the results showed no statistically significant slope or intercept differences in the prediction equations for the two ethnic groups. Model 12 could be used in the prediction of Home Economics course grade for these seniors.

Computer Programming

Sophomores 1985-86. This sample tested only for gender group differences. Using the General composite as a predictor variable, the results showed statistically significant intercept differences for the gender group members. An R^2 change of .105 ($p \leq .01$) was obtained for the Model 8 vs Model 9 comparison; therefore, Model 8 would be the best prediction equation for this sample. Using this composite sophomore females would be consistently underpredicted in their Computer Programming grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Juniors 1984-85. Like the sophomore sample, this sample tested for gender group differences. Again, using the General composite as a predictor variable, the results showed statistically significant intercept differences for the gender group members. An R^2 change of .053 ($p \leq .01$) was obtained for the Model 8 vs Model 9 comparison; therefore, Model 8 would be the best prediction equation for this sample. Using this composite junior females would be consistently underpredicted in their Computer Programming grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Juniors 1985-86. The model comparisons tested only for gender group differences. Usin the ASVAB General predictor composite, the results showed statistically significant intercept differences in the prediction equations for the two junior gender groups and resulted in an R^2 change of .140 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite junior females would be consistently underpredicted in their Computer Programming grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Seniors 1984-85. As in the previous Computer Programming samples, this sample tested for gender group differences. The General composite prediction equations resulted in no statistically significant slope or intercept differences for the gender groups. Thus, Model 9, which contained the unit vector and the ASVAB General composite, could be used in the prediction of Computer Programming course grades obtained by seniors for this year.

Table 15. Summary of Equity Findings for Prediction of High School Course Grades by General Composite

Course	Sex	Ethnicity	Sex*Ethnicity
English I-IV			
Fresh 84-85	S	NS	I
Fresh 85-86	I	E	NS
Soph 84-85	S	E	NS
Soph 85-86	S	I	NS
Jr 84-85	S	E	NS
Jr 85-86	S	E	NS
Sr 84-85	S	E	NS
General Math			
Fresh 84-85	I	E	NS
Fresh 85-86	E	E	NS
Soph 84-85	E	E	NS
Soph 85-86	I	E	NS
Jr 84-85	E	E	NS
Jr 85-86	I	E	NS
Sr 84-85	E	E	NS
Algebra			
Fresh 84-85	I	E	NS
Fresh 85-86	I	E	NS
Soph 84-85	I	E	NS
Soph 85-86	I	E	NS
Jr 84-85	I	E	NS
Jr 85-86	E	E	NS
Sr 84-85	I	E	NS
Geometry			
Fresh 85-86	I	E	NS
Soph 84-85	I	E	NS
Soph 85-86	I	S	NS
Jr 84-85	I	E	NS
Jr 85-86	E	S	NS
Sr 84-85	E	E	NS
Calculus			
Jr 85-86	E	NT	NS
General Science			
Fresh 84-85	NS	NS	I
Fresh 85-86	E	E	NS
Soph 84-85	I	E	NS
Soph 85-86	E	E	NS
Jr 84-85	E	I	NS
Jr 85-86	I	E	NS
Sr 84-85	E	NT	NS
Biology			
Fresh 84-85	I	E	NS
Fresh 85-86	I	E	NS
Soph 84-85	S	NS	I
Soph 85-86	S	E	NS
Jr 84-85	I	E	NS
Jr 85-86	I	NT	NS
Sr 84-85	I	I	NS

Note. NS = Not significant; I = Intercept differences; S = Slope differences; E = Equitable test, no significant slope or intercept differences found; NT = Not tested due to small sample sizes.

Table 15. (Continued)

Course		Sex	Ethnicity	Sex*Ethnicity
Chemistry				
Fresh	85-86	E	NT	NS
Soph	84-85	I	NT	NS
Soph	85-86	I	NT	NS
Jr	84-85	I	I	NS
Jr	85-86	I	E	NS
Sr	84-85	E	E	NS
Physics				
Jr	85-86	I	NT	NS
Sr	84-85	I	NT	NS
Government				
Fresh	84-85	E	NT	NS
Soph	84-85	I	NT	NS
Soph	85-86	S	I	NS
Jr	84-85	I	E	NS
Jr	85-86	I	E	NS
Sr	84-85	I	E	NS
History				
Fresh	84-85	I	E	NS
Fresh	85-86	I	E	NS
Soph	84-85	I	E	NS
Soph	85-86	I	E	NS
Jr	84-85	I	E	NS
Jr	85-86	S	E	NS
Sr	84-85	I	I	NS
Foreign Language				
Fresh	84-85	I	I	NS
Fresh	85-86	S	I	NS
Soph	84-85	I	I	NS
Soph	85-86	I	I	NS
Jr	84-85	I	I	NS
Jr	85-86	I	E	NS
Sr	84-85	I	E	NS
Secretary & Ofc				
Jr	85-86	NT	E	NS
Sr	84-85	NT	E	NS
Typing				
Fresh	84-85	I	E	NS
Fresh	85-86	I	E	NS
Soph	84-85	I	E	NS
Soph	85-86	E	E	NS
Jr	84-85	I	E	NS
Jr	85-86	I	E	NS
Sr	84-85	I	NT	NS

Note. NS = Not significant; I = Intercept differences; S = Slope differences; E = Equitable test, no significant slope or intercept differences found; NT = Not tested due to small sample sizes.

Table 15. (Concluded)

Course		Sex	Ethnicity	Sex*Ethnicity
Accounting				
Soph	85-86	I	NT	NS
Jr	84-85	I	NT	NS
Jr	85-86	I	NT	NS
Sr	84-85	I	NT	NS
Home Economics				
Fresh	84-85	I	I	NS
Fresh	85-86	I	E	NS
Soph	84-85	I	I	NS
Soph	85-86	I	E	NS
Jr	84-85	I	E	NS
Jr	85-86	I	E	NS
Sr	84-85	I	E	NS
Computer Program				
Soph	85-86	I	NT	NS
Jr	84-85	I	NT	NS
Jr	85-86	I	NT	NS
Sr	84-85	E	NT	NS

Note. NS = Not significant; I = Intercept differences; S = Slope differences; E = Equitable test, no significant slope or intercept differences found; NT = Not tested due to small sample sizes.

Subtest Weighted Composite

English I - IV

Freshmen 1984-85. Using the Subtest weighted composite with this sample, the results showed no statistically significant differences between the Model 2 vs Model 4 comparison. Model 4 included the unit vector, the Subtest composite score, and the sex by ethnicity two-way interaction predictor variables, with ethnicity membership being defined as White, Black and Hispanic. With Model 4 as the best prediction equation for this sample's English grade, no differential validity was evidenced for the ethnicity by Subtest score two-way interaction variables or the sex by Subtest score two-way interaction variables.

Freshmen 1985-86. This composite showed statistically significant intercept differences in the prediction equations for the two freshmen gender groups.and resulted in an R^2 change of .009 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the Subtest composite as the predictor variable freshmen females would be consistently underpredicted in their English grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

When the model comparisons were made for ethnic group differences, using this ASVAB composite resulted in no statistically significant slope differences among the White, Black and Hispanic regression lines. Thus Model 12, which contained the unit vector and the Subtest weighted score, could be used in the prediction of English course grades obtained by freshmen in this school year.

Sophomores 1984-85. When the model comparisons were made for gender group differences, using the Subtest weighted composite resulted in statistically significant slope differences between the male and female regression lines. The R^2 change for the Model 7 and Model 8 comparison was approximately .005 ($p \leq .001$), with Model 7 being the best prediction equation for this groups English grade. Thus, the change in the English grade per unit change in the ASVAB Subtest composite was significantly different for this year's sophomore males and females.

Using the Subtest composite score as the aptitude measure resulted in no statistically significant slope or intercept differences for White, Black and Hispanic sophomores which were the ethnic groups defined in the prediction equations. Thus, Model 12, which contained only the unit vector and the Subtest composite score in the prediction equation, could be used in the prediction of English course grade for these sophomores.

Sophomores 1985-86. The model comparisons for gender group differences using the Subtest weighted composite showed statistically significant slope differences between the male and female regression lines, with Model 7 as the prediction equation to be used for this sample. The R^2 change for the Model 7 and Model 8 comparison was approximately .005 ($p \leq .001$). Thus, the change in the English grade per unit change in the ASVAB Subtest composite was significantly different for these sophomore males and females.

Statistically significant intercept differences resulted among the White, Black and Hispanic ethnic subgroups. With an R^2 change of .010 ($p \leq .001$) for the Model 11 vs Model 12 comparison, Model 11 would be the best prediction system. Thus, if a common regression line using the Subtest composite were used in the prediction of English course grade, White and Hispanic sophomores would be consistently underpredicted on the criterion while Black sophomores would be consistently overpredicted.

Juniors 1984-85. When the model comparisons were made for gender group differences, using the Subtest weighted composite resulted in statistically significant slope differences between the male and female regression lines. The R^2 change for the Model 7 and Model 8 comparison was approximately .006 ($p \leq .001$), with Model 7 being the best prediction equation for this group's English grade. Thus, the change in the English grade per unit change in the ASVAB Subtest composite was significantly different for these junior males and females.

Using this ASVAB composite score as the aptitude predictor variable resulted in no statistically significant slope or intercept differences for White, Black and Hispanic juniors. Thus, Model 12, which contained only the unit vector and the Subtest composite score in the prediction equation could be used in the prediction of English course grade for these individuals.

Juniors 1985-86. As in the 1984-85 school year, using the Subtest weighted composite in the equations showed statistically significant slope differences between the male and female regression lines. The R^2 change for the Model 7 and Model 8 comparison was approximately .007 ($p \leq .001$), with Model 7 being the best prediction equation for English grade. Thus, the change in the English grade per unit change in the ASVAB Subtest composite was also significantly different for these junior males and females.

Again, using the Subtest composite score resulted in no statistically significant slope or intercept differences for the ethnic groups, with this sample including only White and Black individuals. Thus, Model 12, which contained only the unit vector and the Subtest composite score in the prediction equation, could be used in the prediction of English course grade for these juniors.

Seniors 1984-85. The ASVAB Subtest composite as the aptitude predictor showed statistically significant intercept differences in the prediction equations for the two senior gender groups and resulted in an R^2 change of .007 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the Subtest composite as the aptitude predictor variable senior females would be consistently underpredicted in their English grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

Using this ASVAB composite score in the equations resulted in no statistically significant slope or intercept differences for the White, Black and Hispanic ethnic group members. Model 12 could be used in the prediction of English course grades obtained by seniors during this school year.

General Math

Freshmen 1984-85. This sample, using the Subtest weighted ASVAB composite score as the aptitude predictor variable, resulted in no statistically significant slope or intercept differences for the gender group members or the White, Black and Hispanic ethnic group members. Thus, Models 9 or 12, which contain only the unit vector and the Subtest composite score in the prediction equation, could be used in the prediction of

General Math course grades obtained by freshmen during this school year.

Freshmen 1985-86. As in the 1984-85 sample, the results showed no statistically significant slope or intercept differences for the gender group members or the ethnic group members, which in this sample were White and Black. Again, Models 9 or 12 containing only the unit vector and the Subtest composite score in the prediction equation, could be used in the prediction of General Math course grade for these freshmen.

Sophomores 1984-85. This sample also resulted in no statistically significant slope or intercept differences for the gender group members or the White, Black and Hispanic ethnic group members. Models 9 or 12, which contained only the unit vector and the Subtest composite score in the prediction equation, could be used in the prediction of General Math course grades obtained during this year by sophomores.

Sophomores 1985-86. This sample, using the Subtest composite in the equations, showed no statistically significant slope or intercept differences between the gender or White and Black ethnic group members regression lines. Thus, Model 9 or 12 could be used in predicting General Math course grade for these individuals.

Juniors 1984-85. In this 1984-85 sample, using the Subtest weighted ASVAB composite score as the aptitude predictor variable, the results showed no statistically significant slope or intercept differences for the gender group members or the White and Black ethnic group members. Thus, Models 9 or 12, which contained only the unit vector and the Subtest composite score in the prediction equation, could be used in the prediction of General Math course grades obtained in 1984-85 by juniors.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. Using the Subtest composite as the aptitude predictor variable resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. Again, Model 9 or 12 containing the unit vector and the Subtest composite score could be used in the prediction of General Math course grade for these juniors.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. As in the junior samples, the results showed no statistically significant slope or

intercept differences for the gender group or ethnic group members. Again, Model 9 or 12 could be used in the prediction of General Math course grades obtained in 1984-85 by seniors.

Algebra

Freshmen 1984-85. Using the ASVAB Subtest composite as the predictor variable, the results showed no statistically significant slope or intercept differences in the prediction equations for the two gender groups or White and Nonwhite ethnic groups. Thus, Model 9 or 12, which contained only the unit vector and the Subtest composite score in the prediction equation, could be used in the prediction of Algebra course grade for freshmen during this school year.

Freshmen 1985-86. With the Subtest composite as the aptitude measure the results showed no statistically significant intercept differences in the prediction equations for the two gender groups and the White and Nonwhite ethnic groups. Again, Model 9 or 12 could be used in the prediction of Algebra course grades obtained by freshmen during the 1985-86 school year.

Sophomores 1984-85. In this 1984-85 sample, using the Subtest weighted ASVAB composite score as the aptitude predictor variable, the results showed no statistically significant slope or intercept differences for the gender group members or the White and Nonwhite ethnic group members. Models 9 or 12, which contained only the unit vector and the Subtest composite score in the prediction equation, could be used in the prediction of Algebra course grades obtained in 1984-85 by sophomores.

Sophomores 1985-86. Using the ASVAB Subtest composite as the predictor variable, the results showed no statistically significant slope or intercept differences in the prediction equations for the two gender groups or White and Nonwhite ethnic groups. Thus, Model 9 or 12, which contained only the unit vector and the Subtest composite score in the prediction equation, could be used in the prediction of Algebra course grade for sophomores during this school year.

Juniors 1984-85. In this 1984-85 sample, using the Subtest weighted ASVAB composite score as the aptitude predictor variable, the results showed no statistically significant slope or intercept differences for the gender group members or the ethnic group members, which in this sample were White and Black. Again, Models 9 or 12 could be used in the prediction of Algebra course grades obtained in 1984-85 by juniors.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Using the

Subtest composite as the aptitude predictor resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. Again, Model 9 or 12 could be used in the prediction of Algebra course grade for these juniors.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. As in the previous samples, using the Subtest composite in the equations resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. Thus, Model 9 or 12 could be used in the prediction of Algebra course grades obtained by seniors in the 1984-85 school year.

Geometry

Freshmen 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. Again, using the Subtest composite in the prediction equations resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. Thus, Model 9 or 12 could be used in the prediction of Geometry course grades obtained by freshmen in the 1985-86 school year.

Sophomores 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. As in the Freshmen sample, using the Subtest composite resulted in no statistically significant slope of intercept differences for the gender group or ethnic group members. Model 9 or 12 could be used in the prediction of Geometry course grade for these sophomores.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. As in the previous samples, with the Subtest composite as the aptitude measure, the results showed statistically significant intercept differences in the prediction equations for the two gender groups and resulted in an R^2 change of .012 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the Subtest composite as the aptitude predictor variable sophomore females would be

consistently underpredicted in their Geometry grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

When the model comparisons were made for ethnic group differences, using the Subtest weighted composite within the equations, showed statistically significant slope differences between the White and Black regression lines. The R^2 change for the Model 10 and Model 11 comparison was approximately .022 ($p \leq .01$), with Model 10 being the best prediction equation for this sample's English grade. Thus, the change in the Geometry grade per unit change in the ASVAB Subtest composite was significantly different for these White and Black sophomores.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The ASVAB Subtest composite as the aptitude predictor showed statistically significant intercept differences in the prediction equations for the two gender groups and resulted in an R^2 change of .021 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using the Subtest composite as the aptitude predictor variable junior females would be consistently underpredicted in their Geometry grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

Using the Subtest composite resulted in no statistically significant slope or intercept differences for the ethnic group members. Again, Model 12 could be used in the prediction of Geometry course grade for these juniors.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. As in some of the other Geometry samples, using the Subtest composite in the prediction equations resulted in no statistically significant slope or intercept differences for the gender group members. Model 9 could be used in the prediction of Geometry course grade for these juniors.

When the model comparisons were made for ethnic group differences, using the Subtest weighted composite showed statistically significant slope differences between the White and Nonwhite regression lines. The R^2 change for the Model 10 and Model 11 comparison was approximately .038 ($p \leq .01$), with Model 10 being the best prediction equation for this sample's Geometry

grade. Thus, the change in the Geometry grade per unit change in the ASVAB Math composite was significantly different for these White and Nonwhite juniors.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. In this sample, the Math composite equations also resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. Again, Model 9 or 12 could be used in the prediction of Geometry course grade for these seniors.

Calculus

Juniors 1985-86. This was the only Calculus sample which possessed more than 50 cases, and only gender group differences were tested. The Subtest composite, as the predictor variable, resulted in no statistically significant slope or intercept differences for the gender group members. Model 9 could be used in the prediction of Calculus course grade for these individuals.

General Science

Freshmen 1984-85. Using the Subtest weighted composite with this sample, the results showed no statistically significant differences between the Model 2 vs Model 4 comparison. Model 4 included the unit vector, the Subtest composite score, and the sex by ethnicity two-way interaction predictor variables, with ethnicity membership being defined as White, Black and Hispanic. With Model 4 as the best prediction equation for this sample's General Science grade, no differential validity was evidenced for the ethnicity by Subtest score two-way interaction variables or the sex by Subtest score two-way interaction variables.

Freshmen 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. Using the Subtest composite as the aptitude predictor variable resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. Model 9 or 12, which contained the unit vector and the Subtest composite score, could be used in the prediction of General Science course grades obtained by freshmen in 1985-86.

Sophomores 1984-85. In this 1984-85 sample, using the Subtest composite score as the aptitude predictor variable, the results also showed no statistically significant slope or intercept differences for the gender group members or the ethnic group

members, which in this sample were White and Nonwhite. Again, Models 9 or 12 could be used in the prediction of General Science course grades obtained by sophomores.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. Again, using the Subtest composite as the aptitude aptitude measure, resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. Model 9 or 12 could be used in the prediction of General Science course grade for these sophomores.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. Using the Subtest composite within the prediction equation resulted in no statistically significant slope or intercept differences for the gender group members. Again, Model 9 could be used in the prediction of General Science course grade for these juniors.

The ASVAB Subtest composite as the aptitude predictor showed statistically significant intercept differences in the prediction equations for the two ethnic groups and resulted in an R^2 change of .074 ($p \leq .01$) for the Model 11 vs Model 12 comparison. Therefore, Model 11 would be the best prediction equation for this sample. Using the Subtest composite as the aptitude predictor variable White juniors would be consistently underpredicted in their General Science grades if the common regression line were used, while Black juniors would be consistently overpredicted if a common regression line were used.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. This Subtest composite prediction equation also resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. As in the previous sample, Model 9 or 12 could be used in the prediction of General Science course grades obtained by juniors in 1985-86.

Seniors 1984-85. This sample tested only for gender group differences. Using the Subtest composite equation resulted in no statistically significant slope or intercept differences for the gender groups. Thus, Model 9, which contained the unit vector and the ASVAB Subtest composite, could be used in the prediction of General Science course grade for these seniors.

Biology I - II

Freshmen 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. This Subtest composite equation also resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. Again, Model 9 or 12 could be used in the prediction of Biology course grades obtained by freshmen in 1985-86.

Freshmen 1985-86. The use of this ASVAB composite score resulted in no statistically significant slope or intercept differences for the gender groups or the White and Black ethnic group members. Thus, Model 9 or Model 12, which contained only the unit vector and the Subtest composite score in the prediction equation, could be used in the prediction of Biology course grades obtained by freshmen during this school year.

Sophomores 1984-85. Using the Subtest weighted composite with this sample, the results showed no statistically significant differences between the Model 2 vs Model 4 comparison. Model 4 included the unit vector, the Subtest composite score, and the sex by ethnicity two-way interaction predictor variables, with ethnicity membership being defined as White, Black and Hispanic. With Model 4 as the best prediction equation for this sample's Biology grade, no differential validity was evidenced for the ethnicity by Subtest score two-way interaction variables or the sex by Subtest score two-way interaction variables.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. Using the Subtest composite as the predictor variable resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. Again, Model 9 or 12 could be used in the prediction of Biology course grade for these sophomores.

Juniors 1984-85. The use of this ASVAB composite score resulted in no statistically significant slope or intercept differences for the gender groups or the White, Black and Hispanic ethnic group members. Thus, Model 9 or Model 12, which contained only the unit vector and the Subtest composite score in the prediction equation, could be used in the prediction of Biology course grades obtained by juniors during this school year.

Juniors 1985-86. This sample tested only for gender group differences. Using the Subtest composite as the predictor variable resulted in no statistically significant slope or intercept differences for the gender groups. Thus, Model 9, which contained the unit vector and the ASVAB Subtest composite, could be used in the prediction of Biology course grade for these juniors.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. The use of this Subtest composite in the equations resulted in no statistically significant slope or intercept differences for the gender group members. Model 9 could be used in the prediction of Biology course grade for these seniors.

Statistically significant intercept differences resulted between the White and Black ethnic subgroups. With an R^2 change of .045 ($p \leq .01$) for the Model 11 vs Model 12 comparison, Model 11 would be the best prediction system. Thus, if a common regression line using the Subtest composite as the aptitude measure were used in the prediction of Biology course grade, White seniors would be consistently underpredicted on this criterion while Black seniors would be consistently overpredicted.

Chemistry I - II

Freshmen 1985-86. This sample tested only for gender group differences. Using the Subtest composite in the equations, the results showed no statistically significant slope or intercept differences for the gender groups. Thus, Model 9, which contained the unit vector and the ASVAB Subtest composite, could be used in the prediction of Chemistry course grades obtained by freshmen in this year.

Sophomores 1984-85. This sample tested only for gender group differences. Again, with the Subtest composite in the equations, the results showed no statistically significant slope or intercept differences for the gender groups. Model 9 could be used in the prediction of Chemistry course grades obtained by these sophomores.

Sophomores 1985-86. This sample tested only for gender group differences. Using the Subtest composite as the predictor variable, the results indicated no statistically significant slope or intercept differences for the gender groups. Again, Model 9 could be used in the prediction of Chemistry course grade for these sophomores.

Juniors 1984-85. Using this ASVAB composite score as the aptitude predictor variable resulted in no statistically significant slope or intercept differences for the gender groups members. Thus, Model 9, which contained only the unit vector and the Subtest composite score in the prediction equation, could be used in the prediction of Chemistry course grades obtained by juniors during this school year.

When ethnic group differences were tested using this composite, the results showed statistically significant slope differences. With an R^2 change of .015 ($p \leq .01$) for the Model 10 vs Model 11 comparison, Model 10 would be the best prediction equation for this group's Chemistry grade. Thus, the change in Chemistry grade per unit change in the Subtest composite score is significantly different for the White and Nonwhite juniors.

Juniors 1985-86. The use of the Subtest composite score resulted in no statistically significant slope or intercept differences for the gender groups or the White and Nonwhite ethnic group members. Again, Model 9 or Model 12 could be used in the prediction of Chemistry course grades obtained by juniors during this school year.

Seniors 1984-85. As in the previous samples using the Subtest composite, the results showed no statistically significant slope or intercept differences for the gender groups or the White and Nonwhite ethnic group members. Model 9 or Model 12 could be used in the prediction of Chemistry course grades obtained by seniors during this school year.

Physics I - II

Juniors 1985-86. This sample tested only for gender group differences. Using the Subtest composite in the equations resulted in no statistically significant slope or intercept differences for the gender groups. Thus, Model 9, which contained the unit vector and the ASVAB Subtest composite, could be used in the prediction of Physics course grades obtained during this year by juniors.

Seniors 1984-85. This sample tested only for gender group differences. The Subtest composite equations resulted in no statistically significant slope or intercept differences for the gender groups. Model 9 could be used in the prediction of Physics course grade for these seniors.

Government and Civics

Freshmen 1984-85. This sample tested only for gender group differences. The Subtest composite prediction equations resulted in no statistically significant slope or intercept differences for the gender groups. Thus, Model 9, which contained the unit

vector and the ASVAB Subtest composite, could be used in the prediction of Government course grades obtained by freshmen for this year.

Sophomore 1984-85. This sample tested for gender group differences. Again, using the Subtest composite as the predictor variable, the results showed no statistically significant slope or intercept differences for the gender groups. Model 9 could be used in the prediction of Government course grade for these sophomores.

Sophomores 1985-86. The use of this ASVAB composite score as the aptitude measure resulted in no statistically significant slope or intercept differences for the gender group members. Thus, Model 9, which contained only the unit vector and the Subtest composite score in the prediction equation, could be used in the prediction of Government course grades obtained by sophomores during this school year.

Statistically significant intercept differences resulted between the White and Hispanic ethnic subgroups. With an R^2 change of .018 ($p \leq .01$) for the Model 11 vs Model 12 comparison, Model 11 would be the best prediction system. Thus, if a common regression line using the Subtest composite as the aptitude measure were used in the prediction of Government course grade, White sophomores would be consistently underpredicted on this criterion while Hispanic sophomores would be consistently overpredicted.

Juniors 1984-85. As in the previous sophomore sample, the use of the Subtest composite score in the prediction equations resulted in no statistically significant slope or intercept differences for the gender groups or the White and Nonwhite ethnic group members. Model 9 or Model 12, which contained only the unit vector and the Subtest composite score in the prediction equation, could be used in the prediction of Government course grades obtained by juniors during this school year.

Juniors 1985-86. This sample, using the Subtest weighted ASVAB composite score as the aptitude predictor variable, resulted in no statistically significant slope or intercept differences for the gender group members or the White and Black ethnic group members. Thus, Models 9 or 12 could be used in the prediction of Government course grade for these juniors.

Seniors 1984-85. Similar to the previous samples, this sample, using the Subtest weighted ASVAB composite score as the aptitude predictor variable, resulted in no statistically significant slope or intercept differences for the gender group members or the White and Black ethnic group members. Again, Models 9 or 12, which contained only the unit vector and the Subtest composite score in the prediction equation, could be used in the prediction of Government course grades for these seniors.

History

Freshmen 1984-85. The use of the ASVAB Subtest composite as the aptitude predictor variable showed statistically significant intercept differences in the prediction equations for the two freshmen gender groups and resulted in an R^2 change of .012 ($p \leq .001$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, freshmen females would be consistently underpredicted in their History grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

The use of this ASVAB composite in the equations resulted in no statistically significant slope or intercept differences for the White, Black and Hispanic ethnic group members. Thus, Model 12, which contained only the unit vector and the Subtest composite score in the prediction equation, could be used in the prediction of History course grades obtained by freshmen during this school year.

Freshmen 1985-86. This sample, using the Subtest weighted ASVAB composite score as the aptitude predictor variable, resulted in no statistically significant slope or intercept differences for the gender group members or the White and Black ethnic group members. Thus, Models 9 or 12, which contained only the unit vector and the Subtest composite score in the prediction equation, could be used in the prediction of History course grade for these freshmen.

Sophomores 1984-85. In this 1984-85 sample, using the Subtest composite score as the aptitude predictor variable, the results also showed no statistically significant slope or intercept differences for the gender group members or the ethnic group members, which in this sample were White and Black. Again, Models 9 or 12 could be used in the prediction of History course grades obtained by sophomores.

Sophomores 1985-86. Using the Subtest weighted composite with this sample, the results showed no statistically significant differences between the Model 2 vs Model 4 comparison. Model 4 included the unit vector, the Subtest composite score, and the sex by ethnicity two-way interaction predictor variables, with ethnicity membership being defined as White, Black and Hispanic. With Model 4 as the best prediction equation for this sample's History grade, no differential validity was evidenced for the ethnicity by Subtest score two-way interaction variables or the sex by Subtest score two-way interaction variables.

Juniors 1984-85. Like the 1985-86 freshmen sample, this sample, using the Subtest weighted ASVAB composite score as the aptitude predictor variable, also resulted in no statistically significant slope or intercept differences for the gender group members or the White and Black ethnic group members. Thus,

Models 9 or 12, which contained only the unit vector and the Subtest composite score in the prediction equation, could be used in the prediction of History course grade for these juniors.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. Using the Subtest composite score as the aptitude predictor variable, the results showed statistically significant slope differences in the prediction equations for the two junior gender groups and resulted in an R^2 change of .016 ($p \leq .01$) for the Model 7 vs Model 8 comparison. Therefore, Model 7 would be the best prediction equation for this sample. Thus, the change in the History grade per unit change in the Subtest composite was significantly different for junior males and females.

Using the Subtest composite predictor variable resulted in no statistically significant slope or intercept differences for the ethnic group members. Again, Model 12 could be used in the prediction of History course grade for these juniors.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. Again, the use of the Subtest composite in the prediction equations resulted in no statistically significant slope or intercept differences for the gender group members. Model 9 could be used in the prediction of History course grade for these seniors.

Statistically significant intercept differences resulted between the White and Black ethnic subgroups. With an R^2 change of .028 ($p \leq .01$) for the Model 11 vs Model 12 comparison, Model 11 would be the best prediction system. Thus, if a common regression line using the Subtest composite as the aptitude measure were used in the prediction of History course grade, White seniors would be consistently underpredicted on this criterion while Black seniors would be consistently overpredicted.

Foreign Language

Freshmen 1984-85. The use of the ASVAB Subtest composite as the aptitude predictor variable showed statistically significant intercept differences in the prediction equations for the two freshmen gender groups and resulted in an R^2 change of .009 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the aptitude predictor variable, freshmen females would be consistently underpredicted in their Foreign

Language grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

The use of this ASVAB composite score in the equations resulted in statistically significant slope differences for the White, Black and Hispanic ethnic group members. With the R^2 change for the Model 10 and Model 11 comparison approximating .008 ($p \leq .01$), Model 10 would be the best prediction system for this sample. Thus, the change in the Foreign Language grade per unit change in the Subtest composite was significantly different for White, Black and Hispanic freshmen.

Freshmen 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. Using the Subtest composite in the prediction equations resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. Again, Model 9 or 12 could be used in the prediction of Foreign Language course grade for these freshmen.

Sophomores 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The Subtest weighted composite predictor equations showed statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .014 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Foreign Language grade. Thus, using this composite as the aptitude measure, sophomore females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

When the model comparisons were made for ethnic group differences, the use of this Subtest composite in the prediction equations resulted in no statistically significant slope or intercept differences for the ethnic group members. Therefore, Model 12, which contained the unit vector and the Subtest composite, could be used in the prediction of these sophomores' Foreign Language course grade.

Sophomores 1985-86. Using the ASVAB Subtest composite as the aptitude predictor in the equations showed statistically significant intercept differences in the prediction equations for the two sophomore gender groups and resulted in an R^2 change of .016 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample.

Using this composite sophomore females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

The use of this ASVAB composite score in the prediction equations resulted in no statistically significant slope or intercept differences for the White and Nonwhite ethnic group members. Again, Model 12 could be used in the prediction of Foreign Language course grades obtained by sophomores during this school year.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The use of the Subtest weighted composite as a predictor measure showed statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .026 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Foreign Language grade. Thus, using this predictor composite, junior females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

When the model comparisons were made for ethnic group differences, using the Subtest composite within the equations, the results also showed statistically significant slope differences between the White, Black and Hispanic regression lines. The R^2 change for the Model 10 and Model 11 comparison was approximately .017 ($p \leq .01$), with Model 10 being the best prediction equation for this sample's Foreign Language grade. Thus, the change in the Foreign Language grade per unit change in the ASVAB Subtest composite was significantly different for these White, Black and Hispanic juniors.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The use of the Subtest weighted composite as a predictor measure showed statistically significant intercept differences between the male and female regression lines. The R^2 change for the Model 8 and Model 9 comparison was approximately .024 ($p \leq .01$), with Model 8 being the best prediction equation for this sample's Foreign Language grade. Thus, using this predictor composite, junior females would be consistently underpredicted in their Foreign Language grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

The Subtest predictor equations resulted in no statistically significant slope or intercept differences for the ethnic group members. Again, Model 12 could be used in the prediction of Foreign Language course grade for these juniors.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The Subtest composite prediction equations resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. Again, Model 9 or 12 could be used in the prediction of Foreign Language course grade for these individuals.

Secretary and Office Education

Juniors 1985-86. This sample tested only for White and Nonwhite ethnic group differences. Using the Subtest composite as the aptitude predictor variable, the results showed no statistically significant slope or intercept differences for the ethnic groups. Thus, Model 12, which contained the unit vector and the ASVAB Subtest composite, could be used in the prediction of this course grade for these juniors.

Seniors 1984-85. This sample tested only for White and Nonwhite group differences. Again, using the Subtest composite prediction equations the results showed no statistically significant slope or intercept differences for the gender groups. Thus, Model 12, which contained the unit vector and the ASVAB Subtest composite, could be used in the prediction of Secretary and Office course grades obtained by these seniors.

Typing and Word Processing

Freshmen 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The Subtest composite prediction equations resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. Model 9 or 12 could be used in the prediction of Typing course grade for these freshmen.

Freshmen 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Hispanic ethnic group differences were studied by not including the gender variables in the equations. Like the previous sample, the Subtest composite prediction equations

resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. Again, Model 9 or 12 could be used in the prediction of Typing course grades obtained by freshmen for this school year.

Sophomores 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White, Black and Hispanic ethnic group differences were studied by not including the gender variables in the equations. The results again showed no statistically significant slope or intercept differences for the gender group or ethnic group members. Model 9 or 12 could be used in the prediction of Typing course grade for these sophomores.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. Using the Subtest composite as the aptitude predictor variable, the results showed no statistically significant slope or intercept differences for the gender group or ethnic group members. Again, Model 9 or 12 could be used in the prediction of Typing course grade for these sophomores.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. The Subtest composite prediction equations resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. Again, Model 9 or 12 could be used in the prediction of Typing course grade for these juniors.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The use of the Subtest composite in the equations resulted in no statistically significant slope or intercept differences for the gender group or ethnic group members. Again, Model 9 or 12 could be used in the prediction of Typing course grade for these juniors.

Seniors 1984-85. This sample tested only for gender group differences. The Subtest composite equations resulted in no statistically significant slope or intercept differences for the gender groups. Thus, Model 9, which contained the unit vector and the ASVAB Subtest composite, could be used in the prediction of Typing course grades obtained by seniors for this year.

Accounting and Bookkeeping

Sophomores 1985-86. This sample tested only for gender group differences. The use of the ASVAB Subtest composite as the predictor variable showed statistically significant intercept differences in the prediction equations for the two freshmen gender groups and resulted in an R^2 change of .018 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the predictor variable, sophomore females would be consistently underpredicted in their Accounting grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

Juniors 1984-85. This sample also tested for gender group differences. Using the Subtest composite prediction equations, the results showed no statistically significant slope or intercept differences for the gender groups. Thus, Model 9, which contained the unit vector and the ASVAB Subtest composite, could be used in the prediction of Accounting course grades obtained by juniors for this year.

Juniors 1985-86. This sample tested for gender group differences. Again, using the Subtest composite in the prediction equations resulted in no statistically significant slope or intercept differences for the gender groups. Model 9 could be used in the prediction of Accounting course grade for these juniors.

Seniors 1984-85. Like the junior samples, this sample tested for gender group differences. The use of the Subtest composite as a predictor variable resulted in no statistically significant slope or intercept differences for the gender groups. Again, Model 9 could be used in the prediction of Accounting course grade for these individuals.

Home Economics

Freshmen 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Black ethnic group differences were studied by not including the gender variables in the equations. The prediction equations with the ASVAB Subtest composite showed statistically significant intercept differences in the prediction equations for the two freshmen gender groups and resulted in an R^2 change of .021 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, freshmen females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB Subtest composite, the results showed statistically significant intercept differences in the prediction equations for the two ethnic groups. An R^2 change of .061 ($p \leq .01$) for the Model 11 vs Model 12 comparison was evidenced; and Model 11 could be used in the prediction of Home Economics course grade for these freshmen. Using this predictor composite, freshmen Whites would be consistently underpredicted in their Home Economics grades if the common regression line were used, while freshmen Blacks would be consistently overpredicted if a common regression line were used.

Freshmen 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Using the Subtest composite as a predictor variable, the results showed statistically significant intercept differences for these two freshmen gender groups and resulted in an R^2 change of .042 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite as the aptitude measure, freshmen females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while freshmen males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB Subtest composite, the results showed no statistically significant slope or intercept differences in the prediction equations for the two ethnic groups. Model 12 could be used in the prediction of Home Economics course grade for these freshmen.

Sophomores 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The prediction equations with the ASVAB Subtest composite showed statistically significant intercept differences in the prediction equations for the two freshmen gender groups and resulted in an R^2 change of .019 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, sophomore females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB Subtest composite, the results showed statistically significant intercept differences in the prediction equations for the two ethnic groups. An R^2 change of .038 ($p \leq .01$) for the Model 11 vs Model 12 comparison was evidenced;

and Model 11 could be used in the prediction of Home Economics course grade for these sophomores. Using this predictor composite, sophomore Whites would be consistently underpredicted in their Home Economics grades if the common regression line were used, while sophomore Nonwhites would be consistently overpredicted if a common regression line were used.

Sophomores 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. The use of the Subtest composite prediction equations resulted in statistically significant intercept differences for the gender group and ethnic group members. The ASVAB Subtest composite showed statistically significant intercept differences in the prediction equations for the two sophomore gender groups and resulted in an R^2 change of .019 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite, sophomore females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while sophomore males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB Subtest composite, the results showed no statistically significant slope or intercept differences in the prediction equations for the two ethnic groups. Thus, Model 12, which contained the unit vector and the Subtest composite score, could be used in the prediction of Home Economics course grades obtained during this school year by sophomores.

Juniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. Using the Subtest composite equations, the results showed no statistically significant slope or intercept differences for the gender group or ethnic group members. Again, Model 9 or 12 could be used in the prediction of Home Economics course grade for these juniors.

Juniors 1985-86. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. However, this sample, using the Subtest composite equations, resulted in statistically significant intercept differences for the gender group members. An R^2 change of .021 ($p \leq .01$) for the Model 8 vs Model 9 comparison was evidence; therefore, Model 8 would be the best prediction equation for this sample. Using this predictor composite junior females would be consistently underpredicted in

their Home Economics grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

When the tests for ethnic group differences were conducted using the ASVAB Subtest composite, the results indicated no statistically significant slope or intercept differences in the prediction equations for the two ethnic groups. Model 12 could be used in the prediction of Home Economics course grade for these juniors.

Seniors 1984-85. At first, using this composite with this sample, gender differences were investigated by not including ethnicity variables in the prediction equations. Then, the White and Nonwhite ethnic group differences were studied by not including the gender variables in the equations. As in the junior 1985-86 sample, the Subtest composite equations resulted in statistically significant intercept differences for the gender group members. An R^2 change of .020 ($p \leq .01$) was obtained for the Model 8 vs Model 9 comparison; therefore, Model 8 would be the best prediction equation for this sample. Using this composite senior females would be consistently underpredicted in their Home Economics grades if the common regression line were used, while senior males would be consistently overpredicted if a common regression line were used.

The tests for ethnic group differences were conducted using the ASVAB Subtest composite, and the results showed no statistically significant slope or intercept differences in the prediction equations for the two ethnic groups. Model 12 could be used in the prediction of Home Economics course grade for these seniors.

Computer Programming

Sophomores 1985-86. This sample tested only for gender group differences. Using the Subtest composite as a predictor variable, the results showed no statistically significant slope or intercept differences for the gender groups. Thus, Model 9, which contained the unit vector and the ASVAB Subtest composite, could be used in the prediction of Computer Programming course grades obtained by sophomores for this year.

Juniors 1984-85. Like the sophomore sample, this sample tested for gender group differences. Again, the Subtest composite equations resulted in no statistically significant slope or intercept differences for the gender groups. Model 9 could be used in the prediction of Computer Programming course grade for these juniors.

Juniors 1985-86. This model tested only for gender group differences. Using the ASVAB Subtest predictor composite, the results showed statistically significant intercept differences in

the prediction equations for the two junior gender groups and resulted in an R^2 change of .031 ($p \leq .01$) for the Model 8 vs Model 9 comparison. Therefore, Model 8 would be the best prediction equation for this sample. Using this composite junior females would be consistently underpredicted in their Computer Programming grades if the common regression line were used, while junior males would be consistently overpredicted if a common regression line were used.

<u>Seniors 1984-85</u>. As in the previous Computer Programming samples, this sample tested for gender group differences. The Subtest composite prediction equations resulted in no statistically significant slope or intercept differences for the gender groups. Thus, Model 9, which contained the unit vector and the ASVAB Subtest composite, could be used in the prediction of Computer Programming course grades obtained by seniors for this year.

<u>Table 16.</u> Summary of Equity Findings for Prediction of High School Course Grades by Subtest Weighted Composite

Course		Sex	Ethnicity	Sex*Ethnicity
English I-IV				
Fresh	84-85	NS	NS	I
Fresh	85-86	I	E	NS
Soph	84-85	S	E	NS
Soph	85-86	S	I	NS
Jr	84-85	S	E	NS
Jr	85-86	S	E	NS
Sr	84-85	I	E	NS
General Math				
Fresh	84-85	E	E	NS
Fresh	85-86	E	E	NS
Soph	84-85	E	E	NS
Soph	85-86	E	E	NS
Jr	84-85	E	E	NS
Jr	85-86	E	E	NS
Sr	84-85	E	E	NS
Algebra				
Fresh	84-85	E	E	NS
Fresh	85-86	E	E	NS
Soph	84-85	E	E	NS
Soph	85-86	E	E	NS
Jr	84-85	E	E	NS
Jr	85-86	E	E	NS
Sr	84-85	E	E	NS
Geometry				
Fresh	85-86	E	E	NS
Soph	84-85	E	E	NS
Soph	85-86	I	S	NS
Jr	84-85	I	E	NS
Jr	85-86	E	S	NS
Sr	84-85	E	E	NS

<u>Note</u>. NS = Not significant; I = Intercept differences; S = Slope differences; E = Equitable test, no significant slope or intercept differences found; NT = Not tested due to small sample sizes.

Table 16. (Continued)

Course		Sex	Ethnicity	Sex*Ethnicity
Calculus				
Jr	85-86	E	NT	NS
General Science				
Fresh	84-85	NS	NS	I
Fresh	85-86	E	E	NS
Soph	84-85	E	E	NS
Soph	85-86	E	E	NS
Jr	84-85	E	I	NS
Jr	85-86	E	E	NS
Sr	84-85	E	NT	NS
Biology				
Fresh	84-85	E	E	NS
Fresh	85-86	E	E	NS
Soph	84-85	NS	NS	I
Soph	85-86	E	E	NS
Jr	84-85	E	E	NS
Jr	85-86	E	NT	NS
Sr	84-85	E	I	NS
Chemistry				
Fresh	85-86	E	NT	NS
Soph	84-85	E	NT	NS
Soph	85-86	E	NT	NS
Jr	84-85	E	S	NS
Jr	85-86	E	E	NS
Sr	84-85	E	E	NS
Physics				
Jr	85-86	E	NT	NS
Sr	84-85	E	NT	NS
Government				
Fresh	84-85	E	NT	NS
Soph	84-85	E	NT	NS
Soph	85-86	E	I	NS
Jr	84-85	E	E	NS
Jr	85-86	E	E	NS
Sr	84-85	E	E	NS
History				
Fresh	84-85	I	E	NS
Fresh	85-86	E	E	NS
Soph	84-85	E	E	NS
Soph	85-86	NS	NS	I
Jr	84-85	E	E	NS
Jr	85-86	S	E	NS
Sr	84-85	E	I	NS
Foreign Language				
Fresh	84-85	I	S	NS
Fresh	85-86	E	E	NS
Soph	84-85	I	E	NS
Soph	85-86	I	E	NS
Jr	84-85	I	S	NS
Jr	85-86	I	E	NS
Sr	84-85	E	E	NS
Secretary & Ofc				
Jr	85-86	NT	E	NS
Sr	84-85	NT	E	NS

Note. NS = Not significant; I = Intercept differences; S = Slope differences; E = Equitable test, no significant slope or intercept differences found; NT = Not tested due to small sample sizes.

Table 16. (Concluded)

Course		Sex	Ethnicity	Sex*Ethnicity
Typing				
Fresh	84-85	E	E	NS
Fresh	85-86	E	E	NS
Soph	84-85	E	E	NS
Soph	85-86	E	E	NS
Jr	84-85	E	E	NS
Jr	85-86	E	E	NS
Sr	84-85	E	NT	NS
Accounting				
Soph	85-86	I	NT	NS
Jr	84-85	E	NT	NS
Jr	85-86	E	NT	NS
Sr	84-85	E	NT	NS
Home Economics				
Fresh	84-85	I	I	NS
Fresh	85-86	I	E	NS
Soph	84-85	I	I	NS
Soph	85-86	I	E	NS
Jr	84-85	E	E	NS
Jr	85-86	I	E	NS
Sr	84-85	I	E	NS
Computer Program				
Soph	85-86	E	NT	NS
Jr	84-85	E	NT	NS
Jr	85-86	I	NT	NS
Sr	84-85	E	NT	NS

Note. NS = Not significant; I = Intercept differences; S = Slope differences; E = Equitable test, no significant slope or intercept differences found; NT = Not tested due to small sample sizes.

IV. DISCUSSION

Sample Characteristics

In comparing the average aptitude composite scores of the gender and ethnic subgroups, the analysis resulted in outcomes which were expected. That is, Whites, on the average, obtained higher scores on composites than minority ethnic group members. White and minority males obtained higher composite scores, on the average, on composites containing quantitative or mechanical subtests, while the female counterparts obtained higher mean scores in composites which included verbal and speeded subtest.

General Linear Models Tests

Thirty samples included both ethnic and gender information in the initial full Model 1. Within these 30 samples, only 12 samples had enough subjects to investigate the contribution of male, female, White, Black, and Hispanic group membership in the prediction of course grade. Eleven samples allowed for the investigation of male, female, White, and Black subgroup male,

information, while seven samples allowed for the investigation of female, White and Nonwhite variable contributions in the prediction of final course grade.

Forty-five samples had enough cases to investigate the contribution of only the ethnicity variables in the prediction of course grade. Of these 45 samples, nine allowed for the study of the White, Black, and Hispanic group membership. Twelve samples allowed for the investigation of White and Black group membership, while only four samples allowed for the study of White and Hispanic group membership. Thirty samples had enough cases to investigate the contribution of the White and NonWhite ethnicity variables in the prediction of course grade. Sixty-two samples had enough cases to investigate the contribution of the male and female variables in the prediction of course grade.

Referring to Appendix D, Figures 1-3, none of the Model 1 vs. Model 2 comparisons resulted in statistically significant differences between the full and restricted models. This meant all samples with all composite predictors resulted in a failure to reject the null hypothesis, which stated that the expected differences in course grades between the differences of White males and Black males at a given ASVAB score was equal to the differences between the differences at every other ASVAB score level. Differences between slopes (i.e., change in grade per unit change in ASVAB composite score) were constant across ethnic groups. Slopes for each ethnic group were different, but the differences between the slopes was constant.

Subsequent model comparisons revealed that none of the ASVAB composites showed a systematic pattern of slope or intercept differences across the various samples. However, there were isolated occurrances of statistically significant slope and/or intercept differences for sex or ethnic groups within a particular composite for some course samples. For example, the Academic Ability composite showed a pattern of statistically significant slope differences between the gender groups for mathematics type courses, such as General Math and Algebra. This pattern did not continue with regard to Geometry. A consistent pattern of no test bias was evidenced for the ASVAB composites with regard to the Calculus and Secretary and Office courses. The classification of students and the year course grades were obtained did not appear to have systematic patterns within ASVAB composites or across courses. Thus, none of the ASVAB composites, across the course samples, demonstrated a particular type of systematic bias against a particular gender or ethnic group.

When significant intercept differences between the gender groups did occur, each ASVAB composite consistently underpredicted females on criterion performance if a common regression line were to be used. In a similar fashion, when significant intercept differences for the ethnic groups were found, Whites or Hispanics were consistently underpredicted on

the criterion performance if a common regression line were used, while Blacks or Nonwhites were overpredicted. The exception to this case was with the Biology course samples, in which Blacks would be underpredicted in Biology course grade if a common regression were used.

In general, certain ASVAB composites would result in significant slope and intercept differences if used in the prediction of particular course grades. Thus, future research is warranted in the investigation of the equity of the high school ASVAB composites, as well as the other composites included in this study.

Future research could investigate the degree of variance within the criterion which could be accounted for by other predictor variables. Such factors as selective enrollment into certain courses, teacher grading styles, and curriculum differences across schools could lead to differential prediction between the subgroups of interest. One way to investigate these aspects of the criterion is to include a "school" vector among the predictors or as a stratification variable in defining the samples. This would eliminate some of the interpretation problems with statistically significant slope or intercept differences between groups of interest.

Future research could also investigate a change in the initial Model 1 vs. Model 2 comparison. This comparison could be altered such that the initial full Model 1 contained all single and interaction variables, while Model 2 excluded all interaction variables except for the sex by ethnicity interaction variable. This could lead to a clearer interpretation of results which test the hypothesis that all slopes are equal for the six groups. The more specific model comparisons for sex and ethnicity slope and intercept differences could then be made and interpreted.

Finally, a consideration for future investigations would be a test for a curvilinear relationship among the variables instead of using a lower level of significance for alpha. This would provide a clearer picture of whether the variables did possess a linear relationship as assumed. Also, to maintain the spirit of sequential testing, Model 3 could be compared to Models 7 and 10. This would eliminate the need to assume that the coefficients associated with the sex by ethnicity interaction variables are equal to zero.

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APPENDIX A: DEFINITIONS OF PREDICTOR VARIABLES

Table A-1. Definition of Predictor Variables[a]

Variables	Description	Code
1	Aptitude Score	ASVAB Composite Score
2	Sex Group Membership (included in Types 1-4 and 9 starting Models)[b]	1 if Male; 0 Otherwise
3	Ethnic Group Membership1 (included in Types 1-8 starting Models)	1 if White; 0 Otherwise
4	Ethnic Group Membership2 (included in Types 1 and 5 starting Models)	1 if Black; 0 Otherwise
5	Sex x Ethnicity 1	V1 * V3
6	Sex x Ethnicity 2	V1 * V4
7	Aptitude x Sex	V1 * V2
8	Aptitude x Ethnicity 1	V1 * V3
9	Aptitude x Ethnicity 2	V1 * V4
10	Aptitude x Sex x Ethnicity 1	V1 * V2 * V3
11	Aptitude x Sex x Ethnicity 2	V1 * V2 * V4
12	Male Gender Group (used in Models 4, 5, and 6)[c]	1 if male; 0 Otherwise
13	Female Gender Group (used in Models 4, 5, and 6)	1 if female; 0 Otherwise
14	White Ethnic Group (used in Models 4, 5, and 6)	1 if White; 0 Otherwise
15	Black Ethnic Group (used in Models 4, 5, and 6 if enough subjects)	1 if Black; 0 Otherwise
16	Hispanic Ethnic Group (used in Models 4, 5, and 6 if enough subjects)	1 if Hispanic; 0 Otherwise
17	Nonwhite Ethnic Group (used in Models 4, 5, and 6 if necessary)	1 if Nonwhite; 0 Otherwise
18	Aptitude x Male (used in Models 4, 5, and 6)	V1 * V12
19	Aptitude x Female (used in Models 4, 5, and 6)	V1 * V13

Table A-1. (Concluded)

Variables	Description	Code
20	**Male x White** (used in Models 4, 5, and 6)	V12 * V14
21	Male x Black (used in Models 4, 5, and 6 if enough subjects)	V12 * V15
22	Male x Hispanic (used in Models 4, 5, and 6 if enough subjects)	V12 * V16
23	Male x Nonwhite (used in Models 4, 5, and 6 if necessary)	V12 * V17
24	Female x White (used in Models 4, 5, and 6)	V13 * V14
25	Female x Black (used in Models 4, 5, and 6 if enough subjects)	V13 * V15
26	Female x Hispanic (used in Models 4, 5, and 6 if enough subjects)	V13 * V16
27	Female x Nonwhite (used in Models 4, 5, and 6 if necessary)	V13 * V17
28	Aptitude x Male x White (used in Models 4, 5, and 6)	V1 * V20
29	Aptitude x Male x Black (used in Models 4, 5, and 6 if enough subjects)	V1 * V21
30	Aptitude x Male x Hispanic (used in Models 4, 5, and 6 if enough subjects)	V1 * V22
31	Aptitude x Male x Nonwhite (used in Models 4, 5, and 6 if necessary)	V1 * V23
32	Aptitude x Female x White (used in Models 4, 5, and 6)	V1 * V24
33	Aptitude x Female x Black (used in Models 4, 5, and 6 if enough subjects)	V1 * V25
34	Aptitude x Female x Hispanic (used in Models 4, 5, and 6 if enough subjects)	V1 * V26
35	Aptitude x Female x Nonwhite (used in Models 4, 5, and 6 if necessary)	V1 * V27

[a] The unit vector is assumed.

[b] See Table 4 for numbers that indicate type of possible starting model.

[c] See Appendix B for Models 4, 5, and 6 composition.

APPENDIX B: MODEL SPECIFICATIONS WITH HYPOTHESES OF INTEREST AND HIERARCHICAL MODEL TESTS

Table B-1. Model Specifications[a]

Model no.	Predictor Variables[b]	Description
1 (initial full model with ethn= Wh, Bl, His; gender= m, f)[c]	V1-V11	ASVAB, sex, ethn 1, ethn 2, sex * ethn 1, sex * ethn 2, ASVAB * sex, ASVAB * ethn 1, ASVAB * ethn 2, ASVAB * sex * ethn 1, ASVAB * sex * ethn 2
(initial full model with ethn= Wh, Bl or Wh, His; gender= m, f)	V1-V11	ASVAB, sex, ethn 1, sex * ethn 1, ASVAB * sex, ASVAB * ethn 1, ASVAB * sex * ethn 2
(initial full model with ethn= Wh, Nonwh; gender= m, f)	V1-V3, V5, V7, V8, V10	ASVAB, sex, ethn 1, sex * ethn 1, ASVAB * sex, ASVAB * ethn 1, ASVAB * sex * ethn 1
2	V1, V2, V3 and/or V4 V5 and/or V6, V7, V8 and/or V9	ASVAB, sex, ethn[d], sex * ethn, ASVAB * sex, ASVAB * ethn
3	V1, V2, V3 and/or V4, V7, V8 and/or V9	ASVAB, sex, ethn, ASVAB * sex, ASVAB * ethn
4	V1, V5 and/or V6	ASVAB, sex, ethn
5	V5 and/or V6, V7	ASVAB * ethn, sex * ethn
6	V5 and/or V6, V7	ASVAB * sex, sex * ethn
7 (initial full model if only gender differences tested; ethn not tested)	V1, V2, V7	ASVAB, sex, ASVAB * sex
8	V1, V2	ASVAB, sex
9	V1	ASVAB
10 (initial full model if only ethn differences tested; ethn = Wh, Bl, His; gender not tested)	V1, V3, V4 V8, V9	ASVAB, ethn 1, ethn 2 ASVAB * ethn 1, ASVAB * ethn 2

Table B-1. (Concluded)

Model no.	Predictor variables[b]	Description
(initial full model if only ethn differences tested; ethn= Wh, Bl, His; gender not tested)	V1, V3, V4, V8	ASVAB, ethn 1, ASVAB * ethn 2
(initial full model if only ethn differences tested; ethn= Wh, Nonwh; gender not tested)	V1, V3, V4, V8	ASVAB, ethn 1, ASVAB * ethn 2
11	V1, V3, and/or V4	ASVAB, ethn[d]
12	V1	ASVAB

[a]The unit vector is assumed.

[b]Variables numbers referenced in Table A-1.

[c]ethn=ethnicity; Wh=Whites, Bl=Black, His=Hispanic, Nonwh=Nonwhite.

[d]Ethnicity being defined according to which initial full model was used.

Table B-2. Hypotheses of Interest

Model Comparison	Mathematical Hypothesis[a]	Natural Language Hypothesis
	Model 1 vs. Model 2	
1. y = u + sex + ethn + ASVAB + (sex * ASVAB) + (ethn * ASVAB) + (sex * ethn) + (sex * ethn * ASVAB) 2. y = u + sex + ethn + ASVAB + (sex * ASVAB) + (ethn * ASVAB) + (sex * ethn)	$(WM_{ai} - BM_{ai}) - (WF_{ai} - BF_{ai}) =$ $(WM_{aj} - BM_{aj}) - (WF_{aj} - BF_{aj})$ and $(WM_{ai} - HM_{ai}) - (WF_{ai} - HF_{ai}) =$ $(WM_{aj} - HM_{aj}) - (WF_{aj} - HF_{aj})$ thus $(BM_{ai} - HM_{ai}) - (BF_{ai} - HF_{ai}) =$ $(BM_{aj} - HM_{aj}) - (BF_{aj} - HF_{aj})$	Expected differences of White males and Black males at a given ASVAB score is equal to the differences between the differences at every other ASVAB score level. Differences between slopes is constant across ethnic groups.
	Model 2 vs. Model 3	
2. y = u + sex + ethn + ASVAB + (sex * ASVAB) + (ethn * ASVAB) + (sex * ethn) 3. y = u + sex + ethn + ASVAB + (sex * ASVAB) + (ethn * ASVAB)	$(WM_{ai} - BM_{ai}) - (WF_{ai} - BF_{ai}) = 0$ and $(WM_{ai} - HM_{ai}) - (WF_{ai} - HF_{ai}) = 0$ and $(BM_{ai} - HM_{ai}) - (BF_{ai} - HF_{ai}) = 0$	Differences between expected values for males and females at a given ASVAB score are constant across ethnic groups. Conversely, differences between the expected values of ethnic groups at a given ASVAB score are constant across gender groups.
	Model 2 vs. Model 4	
2. y = M + F + W + B + H + ASVAB + (M * ASVAB) + (F * ASVAB) + (W * ASVAB) + (B * ASVAB) + (H * ASVAB) + (M * W) + (F * W) + (M * B) + (F * B) + (M * H) + (F * H) or y = M + F + W + B(or H, or NW) + ASVAB + (M * ASVAB) + (F * ASVAB) + (W * ASVAB) + (B(or H, or NW) * ASVAB) + (M * W) + (F * W) + (M * B(or H, or NW)) + (F * B(or H, or NW))	$WM_{ai} - WM_{aj} = WF_{ai} - WF_{aj}$ or $BM_{ai} - BM_{aj} = BF_{ai} - BF_{aj}$ or $HM_{ai} - HM_{aj} = HF_{ai} - HF_{aj}$	Tests that there is no interaction between ASVAB and each of the categorical variables (i.e., sex and ethnicity). Differences between the expected values for all six sex and ethnicity categories are constant.

Table B-2. (Continued)

Model Comparison	Mathematical Hypothesis[a]	Natural Language Hypothesis
	Model 2 vs. Model 4	
4. y = ASVAB + (M * W) + (F * W) + (M * B) + (F * B) + (M * H) + (F * H) or y = ASVAB + (M * W) + (F * W) + (M * B(or H, or NW)) + (F * B(or H, or NW))		
	Model 2 vs. Model 5	
2. y = M + F + W + B + H + ASVAB + (M * ASVAB) + (F * ASVAB) + (W * ASVAB) + (B * ASVAB) + (H * ASVAB) + (M * W) + (F * W) + (M * B) + (F * B) + (M * H) + (F * H) or y = M + F + W + B(or H, or NW) + ASVAB + (M * ASVAB) + (F * ASVAB) + (W * ASVAB) + (B(or H, or NW) * ASVAB) + (M * W) + (F * W) + (M * B(or H, or NW)) + (F * B(or H, or NW))	$M_{Wai} = F_{Wai}$ and $M_{Bai} = F_{Bai}$ and $M_{Hai} = F_{Hai}$	Tests that male and female slopes are equal. Differences of expected values of White males and White females are constant across all ASVAB levels. Differences of expected values of Black males and females are constant across all ASVAB levels.
5. y = (ASVAB * W) + (ASVAB * B) + (ASVAB * H) + (M * W) + (F * W) + (M * B) + (F * B) + (M * H) + (F * H) or y = (ASVAB * W) + (ASVAB * B(or H, or NW)) + (M * W) + (F * W) + (M * B(or H, or NW)) + (F * B(or H, or NW))		

Table B-2. (Continued)

Model Comparison	Mathematical Hypothesis[a]	Natural Language Hypothesis
	Model 2 vs. Model 6	
2. y = M + F + W + B + H + ASVAB + (M * ASVAB) + (F * ASVAB) + (W * ASVAB) + (B * ASVAB) + (H * ASVAB) + (M * W) + (F * W) + (M * B) + (F * B) + (M * H) + (F * H) or y = M + F + W + B(or H, or NW) + ASVAB + (M * ASVAB) + (F * ASVAB) + (W * ASVAB) + (B(or H, or NW) * ASVAB) + (M * W) + (F * W) + (M * B(or H, or NW)) + (F * B(or H, or NW)) 6. y = (M * ASVAB) + (F * ASVAB) + (M * W) + (F * W) + (M * B) + (F * B) + (M * H) + (F * H) or y = (M * ASVAB) + (F * ASVAB) + (M * W) + (F * W) + (M * B(or H, or NW)) + (F * B(or H, or NW))	$W_{mai} = B_{mai}$ and $W_{fai} = B_{fai}$ and $W_{mai} = H_{mai}$ and $W_{fai} = H_{fai}$	Tests that ethnic group slopes are equal. Differences of expected values of White and Black males are constant across all ASVAB levels. Differences of expected values of White and Hispanic males are constant across all ASVAB levels. Differences of expected values of White and Black females are constant across all ASVAB levels. Differences of expected values of White and Hispanic females are constant across all all ASVAB levels.
	Model 7 vs. Model 8	
7. y = u + ASVAB + sex + (sex * ASVAB) 8. y = u + ASVAB + sex	$M_{ai} - F_{ai} = M_{aj} - F_{aj}$	Assumes coefficients for sex * ethnicity variables are equal to 0. Tests that male and female slopes are equal. Differences of expected values of male and female are constant across all ASVAB levels.
	Model 8 vs. Model 9	
8. y = u + ASVAB + sex 9. y = u + ASVAB	$M_{ai} = F_{ai}$	Tests that male and female regression lines intercept the y axis (i.e. criteria) at equal points. Differences of expected values of male and female are constant across all ASVAB levels

Table B-2. (Concluded)

Model Comparison	Mathematical Hypothesis[a]	Natural Language Hypothesis
	Model 10 vs. Model 11	
10. y = ASVAB + ethn + (ethn * ASVAB) 11. y = u + ASVAB + ethn	Wai - Bai = Waj - Baj and Wai - Hai = Waj - Haj	Assumes coefficients for sex * ethnicity variables are equal to 0. Tests that ethnic groups slopes are equal. Differences of expected values of Whites and Blacks are constant across all ASVAB levels. Differences of expected values of White and Hispanic are constant across all ASVAB levels.
	Model 11 vs. Model 12	
11. y = u + ASVAB + ethn 12. y = u + ASVAB	Wai = Bai and Wai = Hai	Tests that ethnic group regression lines intercept the y axis (i.e., criteria) at equal points. Assumes differences of expected values of Whites and Blacks are constant and expected values of Whites and Hispanics are constant.

[a]Using all three ethnic groups for illustrative purposes; with W=White, B=Black, H=Hispanic, M=Males, F=Females, ai=a given ASVAB score level, and aj=another given ASVAB score level.

Figure B-1. Hierarchical F-Test Comparisons (Aptitude by Sex by Ethnicity)

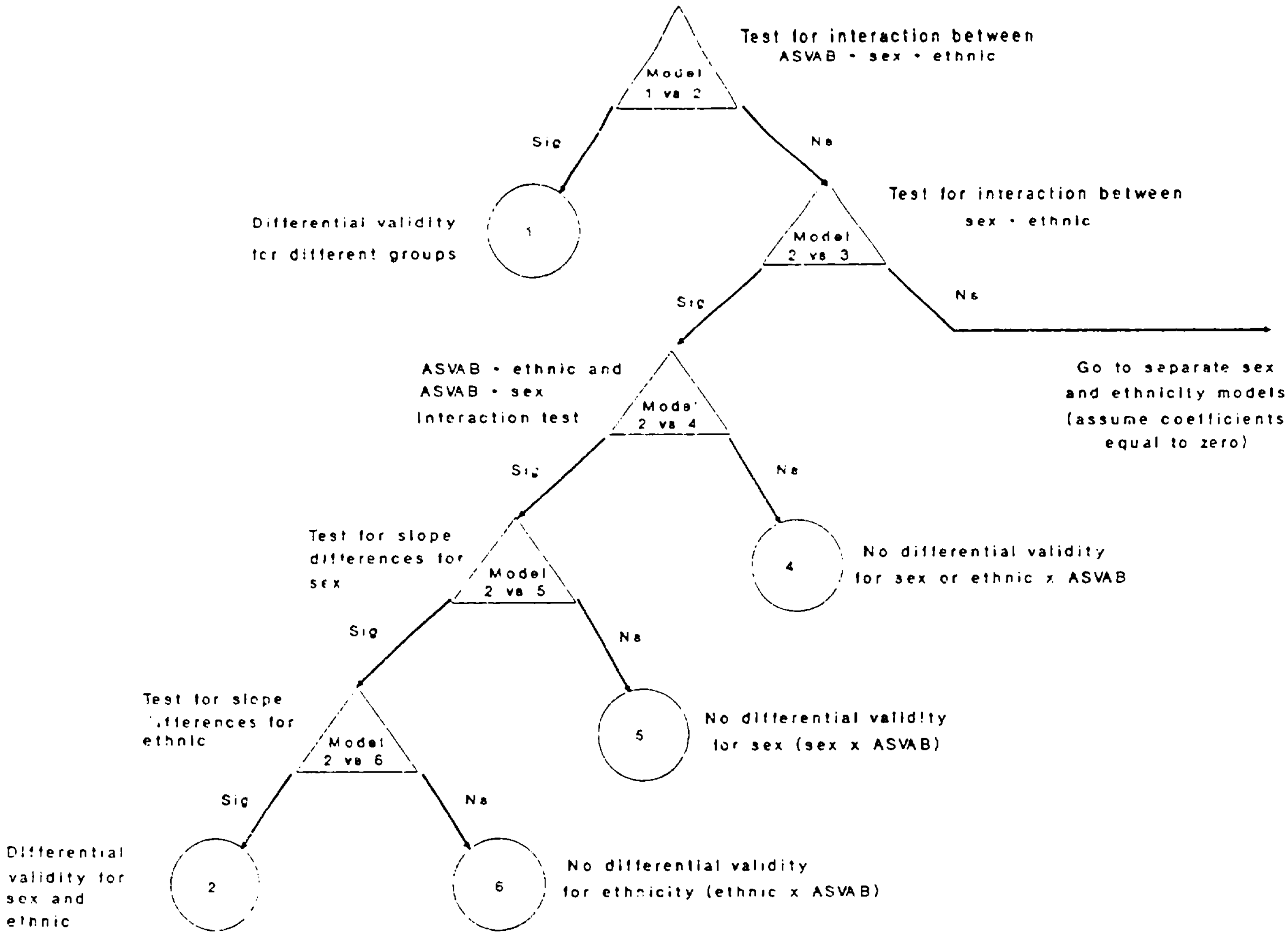


Figure B-2. Hierarchical F-Test Comparisons
(Aptitude by Sex)

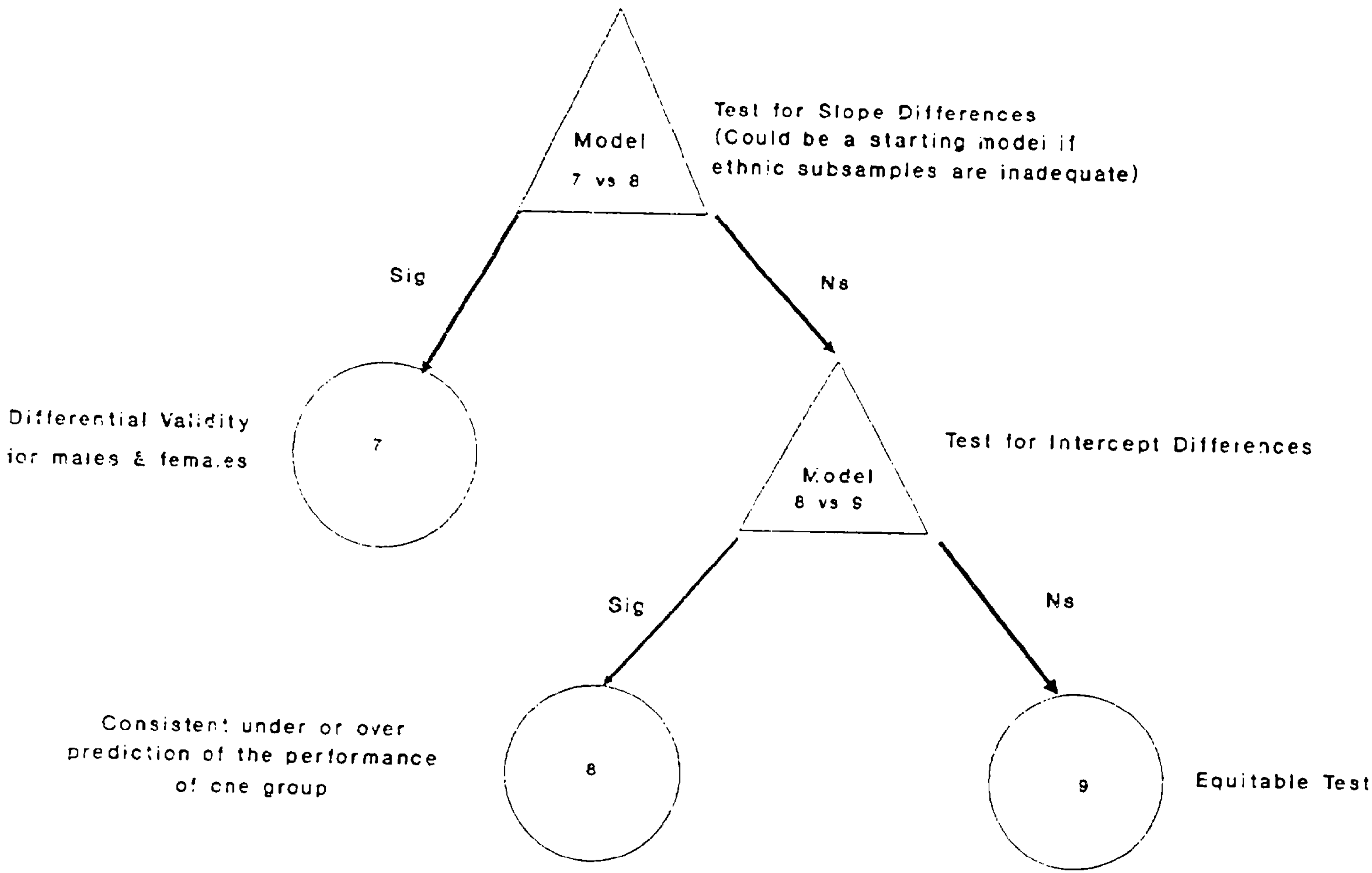
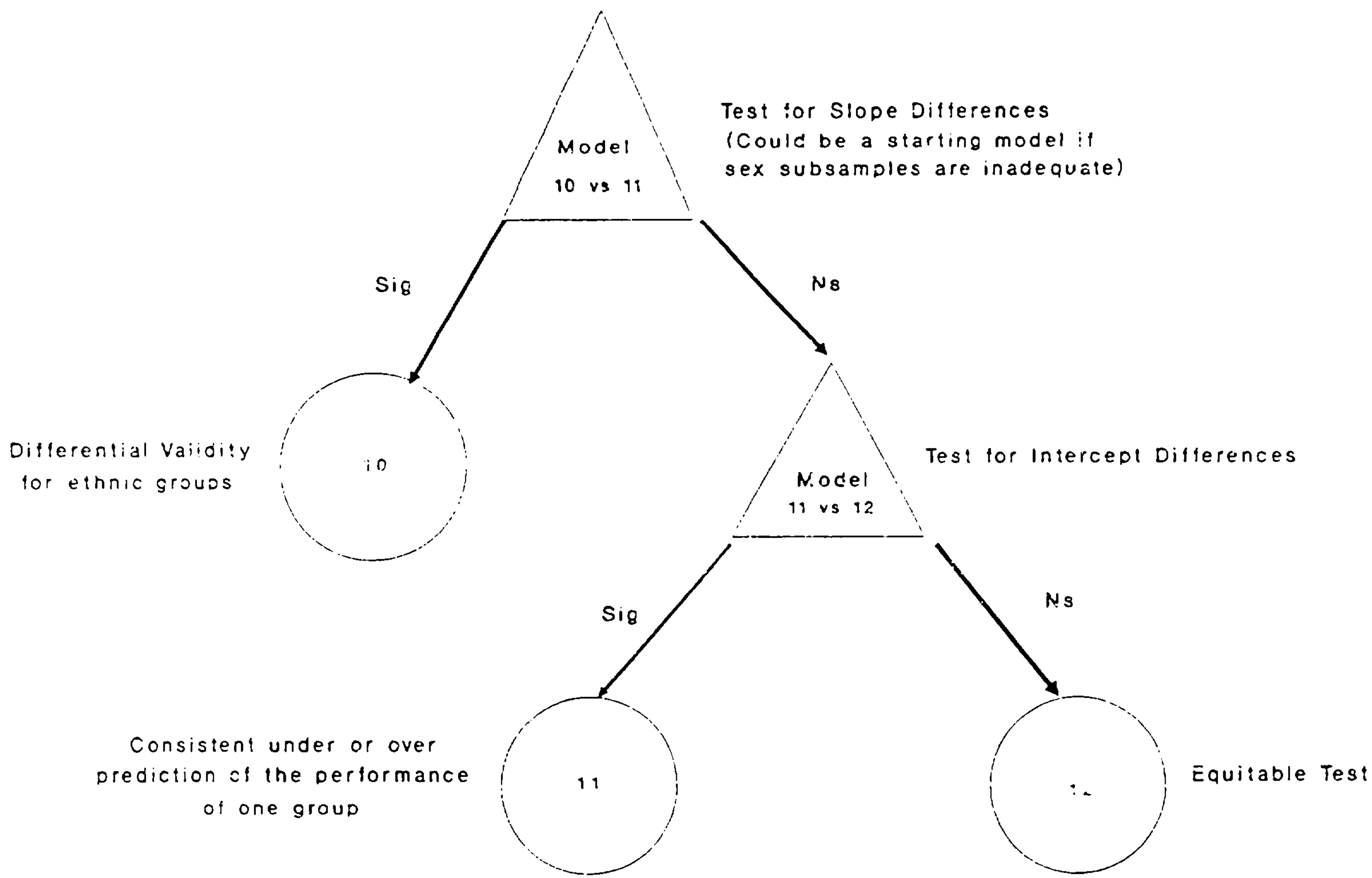


Figure B-3. Hierarchical F-Test Comparisons
(Aptitude by Ethnicity)



APPENDIX C: SUMMARY STATISTICS FOR COMPOSITES

Table C-1. Summary Statistics for Composites (White Males)

	N	Mean	Median	Mode	Std Dev.	Variance	Range	Min	Max	Skew	Kurt
Subtest Composite	2825	2.153	2.143	1.654	.705	.497	3.744	.226	3.970	.103	-.699
Academic Ability	2825	92.923	93.000	94.000	16.284	265.157	76.000	52.000	128.000	-.004	-.816
AFQT	2825	185.939	185.000	160.000	31.758	1008.597	148.000	109.000	257.000	.048	-.801
Verbal	2825	137.188	139.000	127.000	26.051	678.630	125.000	66.000	191.000	-.203	-.815
Math	2825	96.120	94.000	82.000	16.126	260.044	74.000	60.000	134.000	.409	-.695
General	2825	59.096	59.378	64.902	8.571	73.463	47.646	32.499	80.145	-.140	-.608
Mechanical & Crafts	2825	192.512	193.000	199.000	28.464	810.203	162.000	109.000	271.000	.070	-.631
Business & Clerical	2825	140.046	140.000	125.000	21.752	473.144	117.000	82.000	199.000	-.036	-.502
Electronics	2825	189.910	188.000	188.000	29.537	872.414	153.000	112.000	265.000	.145	-.668
Health, Social & Tech	2825	141.457	141.000	138.000	23.537	553.987	121.000	77.000	198.000	.028	-.788
Perceptual Speed	2825	97.865	99.000	101.000	16.754	280.682	91.000	43.000	134.000	-.267	-.212
Technical	2825	144.498	145.000	130.000	22.364	500.169	126.000	79.000	205.000	.038	-.619

Table C-2. Summary Statistics for Composites (White Females)

	N	Mean	Median	Mode	Std Dev.	Variance	Range	Min	Max	Skew	Kurt
Subtest Composite	2664	2.376	2.360	2.043	.626	.392	3.447	.536	3.983	.058	-.465
Academic Ability	2664	91.569	91.000	93.000	14.618	213.673	76.000	52.000	128.000	.083	-.618
AFQT	2664	184.892	184.000	166.000	28.522	813.513	152.000	106.000	258.000	.126	-.598
Verbal	2664	135.185	136.000	125.000	22.836	521.464	126.000	63.000	189.000	-.085	-.622
Math	2664	94.874	93.000	82.000	14.545	211.551	72.000	62.000	134.000	.483	-.422
General	2664	57.178	57.084	48.973	6.874	47.249	44.326	32.511	76.838	.011	-.305
Mechanical & Crafts	2664	172.160	170.000	165.000	20.195	407.819	144.000	110.000	254.000	.419	-.018
Business & Clerical	2664	145.009	145.000	143.000	19.545	382.026	116.000	82.000	198.000	-.091	-.275
Electronics	2664	181.496	179.000	170.000	24.273	589.200	145.000	111.000	256.000	.342	-.333
Health, Social & Tech	2664	134.623	133.000	133.000	19.608	384.471	113.000	81.000	194.000	.209	-.443
Perceptual Speed	2664	105.253	07.000	113.000	15.625	244.140	86.000	48.000	134.000	-.505	.114
Technical	2664	125.600	124.000	121.000	14.608	213.381	110.000	80.000	190.000	.429	.247

Table C-3. Summary Statistics for Composites (Black Males)

	N	Mean	Median	Mode	Std Dev.	Variance	Range	Min	Max	Skew	Kurt
Subtest Composite	575	1.716	1.691	1.738	.529	.280	3.310	.487	3.797	.402	.249
Academic Ability	575	76.988	76.000	79.000	12.339	152.242	81.000	46.000	127.000	.643	.363
AFQT	575	155.682	154.000	132.000	23.657	559.677	152.000	102.000	254.000	.677	.434
Verbal	575	108.546	105.000	104.000	20.681	427.705	125.000	63.000	188.000	.731	.314
Math	575	84.148	83.000	79.000	11.033	121.736	70.000	62.000	132.000	1.049	1.426
General	575	50.368	49.946	34.404	6.323	39.985	46.496	34.404	80.901	.500	.624
Mechanical & Crafts	575	160.666	157.000	146.000	19.590	383.777	154.000	111.000	265.000	.935	1.566
Business & Clerical	575	124.245	124.000	141.000	18.996	360.865	117.000	80.000	197.000	.171	-.317
Electronics	575	160.555	158.000	148.000	20.783	431.934	147.000	119.000	266.000	.987	1.428
Health, Social & Tech	575	116.536	114.000	112.000	17.054	290.845	110.000	84.000	194.000	.765	.658
Perceptual Speed	575	95.240	96.000	92.000	20.542	421.988	87.000	46.000	133.000	-.069	-.678
Technical	575	119.445	116.000	112.000	15.935	253.913	126.000	73.000	199.000	.849	1.427

Table C-4. Summary Statistics for Composites (Black Females)

	N	Mean	Median	Mode	Std Dev.	Variance	Range	Min	Max	Skew	Kurt
Subtest Composite	684	1.873	1.840	1.068	.489	.239	2.722	.641	3.363	.329	.011
Academic Ability	684	76.142	75.000	75.000	10.314	106.388	63.000	52.000	115.000	.677	.532
AFQT	684	154.854	152.000	146.000	20.345	413.938	118.000	115.000	233.000	.728	.525
Verbal	684	107.750	106.000	95.000	17.802	316.905	98.000	73.000	171.000	.712	.418
Math	684	83.713	82.000	79.000	9.575	91.681	57.000	63.000	120.000	.899	1.310
General	684	50.199	49.931	36.198	4.841	23.431	30.392	36.198	66.589	.282	.253
Mechanical & Crafts	684	151.775	151.000	150.000	11.698	136.854	81.000	115.000	196.000	.459	.620
Business & Clerical	684	130.456	130.000	131.000	17.908	320.679	88.000	87.000	175.000	.035	-.420
Electronics	684	156.598	155.000	145.000	16.070	258.235	100.000	115.000	215.000	.648	.485
Health, Social & Tech	684	113.629	112.000	111.000	12.567	157.926	71.000	86.000	157.000	.619	.472
Perceptual Speed	684	104.737	106.000	131.000	19.528	381.345	91.000	43.000	134.000	-.355	-.604
Technical	684	111.203	111.000	112.000	9.182	84.303	67.000	76.000	143.000	.205	.582

Table C-5. Summary Statistics for Composites (Hispanic Males)

	N	Mean	Median	Mode	Std Dev.	Variance	Range	Min	Max	Skew	Kurt
Subtest Composite	330	1.764	1.719	1.164	.529	.280	2.741	.468	3.209	.233	-.207
Academic Ability	330	79.070	78.000	84.000	13.099	171.591	68.000	54.000	122.000	.460	-.004
AFQT	330	158.588	158.000	163.000	24.633	606.778	135.000	106.000	241.000	.442	-.021
Verbal	330	111.206	109.000	102.000	20.915	437.447	109.000	63.000	172.000	.540	.051
Math	330	86.291	84.000	82.000	12.116	146.797	67.000	62.000	129.000	.913	.703
General	330	51.768	51.437	58.656	6.826	46.588	36.178	37.269	73.448	.183	-.369
Mechanical & Crafts	330	167.042	164.000	150.000	23.601	557.019	132.00	121.000	253.000	.619	-.011
Business & Clerical	330	126.055	125.000	118.000	19.481	379.523	99.000	81.000	180.000	.139	-.454
Electronics	330	165.179	163.000	158.000	21.973	482.804	133.000	116.000	249.000	.556	.259
Health, Social & Tech	330	120.721	120.000	120.000	19.037	362.421	104.000	83.000	187.000	.483	-.133
Perceptual Speed	330	97.073	97.500	85.000	20.256	410.317	88.000	46.000	134.000	-.183	-.436
Technical	330	124.121	122.000	114.000	19.063	363.383	102.000	87.000	189.000	.623	-.008

Table C-6. Summary Statistics for Composites (Hispanic Females)

	N	Mean	Median	Mode	Std Dev.	Variance	Range	Min	Max	Skew	Kurt
Subtest Composite	684	2.087	2.072	1.521	.558	.311	3.221	.381	3.602	.108	-.054
Academic Ability	684	82.406	81.000	76.000	13.261	175.864	74.000	52.000	126.000	.335	-.277
AFQT	684	166.846	164.000	159.000	25.603	655.530	145.000	107.000	252.000	.375	-.110
Verbal	684	117.858	117.000	104.000	20.869	435.516	114.000	68.000	182.000	.245	-.410
Math	684	88.273	86.000	82.000	12.149	147.605	76.000	55.000	131.000	.759	.559
General	684	52.682	52.507	45.733	5.599	31.346	35.702	35.188	70.890	.050	.108
Mechanical & Crafts	684	158.991	158.000	157.000	15.724	247.230	94.00	120.000	214.000	.396	.363
Business & Clerical	684	135.972	137.000	140.000	18.142	329.131	104.00	79.000	183.000	-.317	.104
Electronics	684	165.294	163.000	158.000	19.536	381.651	110.000	120.000	230.000	.479	.170
Health, Social & Tech	684	121.181	121.000	110.000	17.050	290.702	100.000	80.000	180.000	.390	-.051
Perceptual Speed	684	104.256	104.000	103.000	17.111	292.785	91.000	43.000	134.000	-.376	.004
Technical	684	115.871	115.500	114.000	11.385	129.620	76.000	84.000	160.000	.284	.515

APPENDIX D: F-TESTS OF SIGNIFICANCE FOR COMPOSITES

Table D-1. F-Tests of Significance for Academic Ability Composite

	Comparison		R^2					
F-Test Comparison	Full	Restricted	Full	Restricted	R^2 Change	df_1	df_2	F
English I - IV 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2420	.2406	.00133	2	2,422	2.13
Sex & Ethnicity Interaction Test	2	3	.2406	.2359	.00470	2	2,424	7.50 **
Consistent Over or Under prediction of Subgroup	2	4	.2406	.2385	.00215	3	2,424	2.29
English I - IV 1985 - 1986 Freshmen (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2015	.1998	.00173	2	1,989	2.16
Sex & Ethnicity Interaction Test	2	3	.1998	.1972	.00265	2	1,991	3.30
Slope Differences for Sex	7	8	.1884	.1882	.00012	1	1,997	0.29
Intercept Differences for Sex	8	9	.1882	.1523	.03595	1	1,998	88.49 **
Slope Differences for Ethnicity	10	11	.1599	.1539	.00601	2	1,995	7.13 **
English I - IV 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2568	.2566	.00018	2	2,296	0.28
Sex & Ethnicity Interaction Test	2	3	.2566	.2551	.00150	2	2,298	2.31
Slope Differences for Sex	7	8	.2543	.2485	.00580	1	2,304	17.94 **
Slope Differences for Ethnicity	10	11	.1963	.1963	.00004	2	2,302	0.05
Intercept Differences for Ethnicity	11	12	.1963	.1952	.00109	2	2,304	1.56
English I - IV 1985 - 1986 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2354	.2344	.00107	2	1,942	1.36
Sex & Ethnicity Interaction Test	2	3	.2343	.2334	.00095	2	1,944	1.21
Slope Differences for Sex	7	8	.2270	.2200	.00699	1	1,950	17.63 **
Slope Differences for Ethnicity	10	11	.1678	.1671	.00069	2	1,948	0.80
Intercept Differences for Ethnicity	11	12	.1671	.1592	.00784	2	1,950	9.17 **
English I - IV 1984 - 1985 Junior (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2422	.2421	.00010	2	1,721	0.11
Sex & Ethnicity Interaction Test	2	3	.2421	.2419	.00027	2	1,723	0.31
Slope Differences for Sex	7	8	.2396	.2330	.00661	1	1,729	15.03 **
Slope Differences for Ethnicity	10	11	.1572	.1565	.00067	2	1,727	0.69
Intercept Differences for Ethnicity	11	12	.1565	.1550	.00148	2	1,729	1.52
English I - IV 1985 - 1986 Junior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2141	.2140	.00008	1	1,258	0.13
Sex & Ethnicity Interaction Test	2	3	.2140	.2140	.00004	1	1,259	0.07
Slope Differences for Sex	7	8	.2139	.2073	.00656	1	1,262	10.53 *
Intercept Differences for Sex	8	9	.2073	.1238	.08350	1	1,263	133.03 **
Slope Differences for Ethnicity	10	11	.1240	.1238	.00021	1	1,262	0.31
Intercept Differences for Ethnicity	11	12	.1238	.1238	.00002	1	1,263	0.03

Table D-1. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
English I - IV 1984 - 1985 Senior (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1981	.1966	.00149	2	1,275	1.19
Sex & Ethnicity Interaction Test	2	3	.1966	.1960	.00065	2	1,277	0.52
Slope Differences for Sex	7	8	.1851	.1823	.00278	1	1,283	4.37
Intercept Differences for Sex	8	9	.1823	.1545	.02783	1	1,284	43.71 **
Slope Differences for Ethnicity	10	11	.1616	.1546	.00700	2	1,281	5.35 *
Intercept Differences for Ethnicity	11	12	.1546	.1545	.00012	2	1,283	0.09
General Math 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.0743	.0728	.00158	2	1,167	0.99
Sex & Ethnicity Interaction Test	2	3	.0728	.0692	.00353	2	1,169	2.23
Slope Differences for Sex	7	8	.0672	.0655	.00179	1	1,175	2.25
Intercept Differences for Sex	8	9	.0655	.0564	.00902	1	1,176	11.35 **
Slope Differences for Ethnicity	10	11	.0591	.0590	.00015	2	1,173	0.10
Intercept Differences for Ethnicity	11	12	.0590	.0564	.00253	2	1,175	1.58
General Math 1985 - 1986 Freshmen (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.0315	.0315	.00001	1	549	0.00
Sex & Ethnicity Interaction Test	2	3	.0315	.0293	.00220	1	550	1.25
Slope Differences for Sex	7	8	.0218	.0190	.00287	1	553	1.62
Intercept Differences for Sex	8	9	.0190	.0130	.00595	1	554	3.36
Slope Differences for Ethnicity	10	11	.0211	.0137	.00745	1	553	4.21
Intercept Differences for Ethnicity	11	12	.0137	.0130	.00065	1	554	0.37
General Math 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.0674	.0659	.00150	2	736	0.59
Sex & Ethnicity Interaction Test	2	3	.0659	.0602	.00564	2	738	2.23
Slope Differences for Sex	7	8	.0508	.0508	.00000	1	744	0.00
Intercept Differences for Sex	8	9	.0508	.0474	.00342	1	745	2.69
Slope Differences for Ethnicity	10	11	.0571	.0552	.00185	[illegible]	742	0.73
Intercept Differences for Ethnicity	11	12	.0552	.0474	.00786	2	744	3.10
General Math 1985 - 1986 Sophomore (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1075	.1014	.00608	1	305	2.08
Sex & Ethnicity Interaction Test	2	3	.1014	.0992	.00227	1	[illegible]	0.77
Slope Differences for Sex	7	8	.0823	.0817	.00063	1	309	0.21
Intercept Differences for Sex	8	9	.0817	.0463	.03540	1	310	11.95 **
Slope Differences for Ethnicity	10	11	.0621	.0601	.00201	1	309	0.66
Intercept Differences for Ethnicity	11	12	.0601	.0463	.01381	1	310	4.56
General Math 1984 - 1985 Junior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.0546	.0541	.00043	1	266	0.12
Sex & Ethnicity Interaction Test	2	3	.0541	.0541	.00003	1	267	0.01
Slope Differences for Sex	7	8	.0498	.0481	.00167	1	270	0.47
Intercept Differences for Sex	8	9	.0481	.0224	.02568	1	271	7.31 *
Slope Differences for Ethnicity	10	11	.0258	.0258	.00001	1	270	0.00
Intercept Differences for Ethnicity	11	12	.0258	.0224	.00337	1	271	0.94

Table D-1. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
General Math 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1175	.1161	.00143	1	222	0.36
Intercept Differences for Sex	8	9	.1161	.0885	.02763	1	223	6.97 *
General Math 1985 - 1986 Junior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1114	.1078	.00362	1	195	0.79
Intercept Differences for Ethnicity	11	12	.1078	.1056	.00217	1	196	0.48
General Math 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0922	.0842	.00800	1	230	2.03
Intercept Differences for Sex	8	9	.0842	.0819	.00029	1	231	0.07
General Math 1984 - 1985 Senior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1244	.1235	.00094	1	203	0.22
Intercept Differences for Ethnicity	11	12	.1235	.1054	.01811	1	204	4.22
Algebra 1984 - 1985 Freshmen (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1838	.1764	.00733	1	1,180	10.59 *
Sex & Ethnicity Interaction Test	2	3	.1764	.1764	.00001	1	1,181	0.01
Slope Differences for Sex	7	8	.1745	.1733	.00123	1	1,184	1.76
Intercept Differences for Sex	8	9	.1733	.1331	.04025	1	1,185	57.70 **
Slope Differences for Ethnicity	10	11	.1385	.1358	.00273	1	1,184	3.75
Intercept Differences for Ethnicity	11	12	.1358	.1331	.00274	1	1,185	3.76
Algebra 1985 - 1986 Freshmen (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1895	.1895	.00000	1	708	0.00
Sex & Ethnicity Interaction Test	2	3	.1895	.1878	.00171	1	709	1.50
Slope Differences for Sex	7	8	.1843	.1843	.00000	1	712	0.00
Intercept Differences for Sex	8	9	.1843	.1425	.04185	1	713	36.58 **
Slope Differences for Ethnicity	10	11	.1459	.1453	.00052	1	712	0.44
Intercept Differences for Ethnicity	11	12	.1453	.1425	.00286	1	713	2.39
Algebra 1984 - 1985 Sophomore (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1271	.1271	.00000	1	871	0.00
Sex & Ethnicity Interaction Test	2	3	.1271	.1214	.00566	1	872	5.66
Slope Differences for Sex	7	8	.1189	.1163	.00265	1	875	2.64
Intercept Differences for Sex	8	9	.1163	.0901	.02620	1	876	25.97 **
Slope Differences for Ethnicity	10	11	.0920	.0905	.00155	1	875	1.49
Intercept Differences for Ethnicity	11	12	.0905	.0901	.00041	1	876	0.39
Algebra 1985 - 1986 Sophomore (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1237	.1236	.00005	1	617	0.03
Sex & Ethnicity Interaction Test	2	3	.1236	.1218	.00185	1	618	1.31
Slope Differences for Sex	7	8	.1156	.1150	.00062	1	621	0.44
Intercept Differences for Sex	8	9	.1150	.0975	.01755	1	622	12.33 **
Slope Differences for Ethnicity	10	11	.1017	.1002	.00153	1	621	1.06
Intercept Differences for Ethnicity	11	12	.1002	.0975	.00275	1	622	1.90

Table D-1 (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Algebra 1984 - 1985 Junior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1749	.1743	.00058	1	489	0.35
Sex & Ethnicity Interaction Test	2	3	.1743	.1730	.00129	1	490	0.77
Slope Differences for Sex	7	8	.1642	.1639	.00033	1	493	0.19
Intercept Differences for Sex	8	9	.1639	.1341	.02974	1	494	17.57 **
Slope Differences for Ethnicity	10	11	.1425	.1389	.00359	1	493	2.06
Intercept Differences for Ethnicity	11	12	.1389	.1341	.00479	1	494	2.75
Algebra 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1283	.1207	.00761	1	273	2.38
Intercept Differences for Sex	8	9	.1207	.1131	.00757	1	274	2.36
Algebra 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1297	.1172	.01248	1	273	3.91
Intercept Differences for Ethnicity	11	12	.1172	.1131	.00411	1	274	1.27
Algebra 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1440	.1349	.00913	1	265	2.83
Intercept Differences for Sex	8	9	.1349	.0960	.03883	1	266	11.94 **
Algebra 1984 - 1985 Senior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1207	.1038	.01687	1	265	5.08
Intercept Differences for Ethnicity	11	12	.1038	.0960	.00777	1	266	2.31
Geometry 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2301	.2300	.00007	1	511	0.05
Intercept Differences for Sex	8	9	.2300	.2241	.00590	1	512	3.92
Geometry 1985 - 1986 Freshmen (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2269	.2245	.00238	2	5[illegible]9	0.78
Intercept Differences for Ethnicity	11	12	.2245	.2241	.00041	2	511	0.14
Geometry 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2233	.2232	.00006	1	561	0.04
Intercept Differences for Sex	8	9	.2233	.2141	.00910	1	562	6.58
Geometry 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2274	.2178	.00956	2	559	3.46
Intercept Differences for Ethnicity	11	12	.2178	.2142	.00365	2	561	1.31
Geometry 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2397	.2393	.00034	1	410	0.18
Intercept Differences for Sex	8	9	.2393	.2149	.02444	1	411	13.20 **

Table D-1. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Geometry 1985 - 1986 Sophomore (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2546	.2338	.02086	1	371	10.39 *
Geometry 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2086	.2052	.00335	1	305	1.29
Intercept Differences for Sex	8	9	.2052	.1838	.02143	1	306	8.25 *
Geometry 1984 - 1985 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1866	.1860	.00051	1	305	0.19
Intercept Differences for Ethnicity	11	12	.1860	.1838	.00227	1	306	0.86
Geometry 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1800	.1778	.00214	1	123	0.32
Intercept Differences for Sex	8	9	.1778	.1646	.01328	1	124	2.00
Geometry 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2891	.2290	.06014	1	123	10.41 *
Geometry 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2335	.2299	.00358	1	107	0.50
Intercept Differences for Sex	8	9	.2299	.2290	.00091	1	108	0.13
Geometry 1984 - 1985 Senior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2481	.2426	.00552	1	107	0.79
Intercept Differences for Ethnicity	11	12	.2426	.2290	.01361	1	108	1.94
Calculus 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0826	.0808	.00184	1	147	0.29
Intercept Differences for Sex	8	9	.0808	.0804	.00035	1	148	0.06
General Science 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2474	.2436	.00386	2	1,956	5.01 *
Sex & Ethnicity Interaction Test	2	3	.2436	.2356	.00800	2	1,958	10.35 **
Consistent Over or Under prediction of Subgroup	2	4	.2436	.2431	.00047	3	1,958	0.41
General Science 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1251	.1203	.00477	1	274	1.49
Intercept Differences for Sex	8	9	.1204	.1128	.00751	1	275	2.35
General Science 1985 - 1986 Freshmen (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1350	.1128	.02220	1	240	6.16
Intercept Differences for Ethnicity	11	12	.1128	.1124	.00038	1	241	0.10

Table D-1. (Continued)

F-Test Comparison	Comparison		R^2					
	Full	Restricted	Full	Restricted	R^2 Change	df1	df2	F
General Science 1984 - 1985 Sophomore (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2268	.2253	.00152	1	341	0.67
Sex & Ethnicity Interaction Test	2	3	.2253	.2150	.01029	1	342	4.54
Slope Differences for Sex	7	8	.2005	.2001	.00030	1	345	0.13
Intercept Differences for Sex	8	9	.2002	.1606	.03957	1	346	17.12 **
Slope Differences for Ethnicity	10	11	.1817	.1786	.00316	1	345	1.33
Intercept Differences for Ethnicity	11	12	.1786	.1606	.01799	1	346	7.58 *
General Science 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1329	.1324	.00051	1	183	0.11
Intercept Differences for Sex	8	9	.1324	.1017	.03068	1	184	6.51
General Science 1985 - 1986 Sophomore (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1711	.1618	.00925	1	158	1.76
Intercept Differences for Ethnicity	11	12	.1618	.1314	.03037	1	159	5.76
General Science 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0810	.0802	.00074	1	174	0.14
Intercept Differences for Sex	8	9	.0802	.0627	.01750	1	175	3.33
General Science 1984 - 1985 Junior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1398	.1389	.00088	1	149	0.15
Intercept Differences for Ethnicity	11	12	.1390	.0838	.05520	1	150	9.62 *
General Science 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2359	.2355	.00046	1	258	0.15
Intercept Differences for Sex	8	9	.2355	.2176	.01790	1	259	6.06
General Science 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2208	.2176	.00317	1	258	1.05
Intercept Differences for Ethnicity	11	12	.2176	.2176	.00005	1	259	0.02
General Science 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0888	.0887	.00010	1	182	0.02
Intercept Differences for Sex	8	9	.0887	.0704	.01825	1	183	3.66
Biology I - II 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2227	.2227	.00001	1	299	0.00
Intercept Differences for Sex	8	9	.2227	.2083	.01445	1	300	5.58
Biology I - II 1984 - 1985 Freshmen (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2107	.2083	.00238	1	299	0.90
Intercept Differences for Ethnicity	11	12	.2083	.2082	.00005	1	300	0.02

Table D-1. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Biology I - II 1985 - 1986 Freshmen (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1884	.1884	.00000	1	1,119	0.00
Sex & Ethnicity Interaction Test	2	3	.1884	.1884	.00002	1	1,120	0.03
Slope Differences for Sex	7	8	.1866	.1857	.00095	1	1,123	1.31
Intercept Differences for Sex	8	9	.1857	.1552	.03052	1	1,124	42.12 **
Slope Differences for Ethnicity	10	11	.1570	.1568	.00013	1	1,123	0.18
Intercept Differences for Ethnicity	11	12	.1568	.1552	.00165	1	1,124	2.20
Biology I - II 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2410	.2404	.00060	2	1,371	0.54
Sex & Ethnicity Interaction Test	2	3	.2404	.2337	.00671	2	1,373	6.06 *
Slope Differences for Sex	7	8	.2063	.2038	.00254	1	1,379	4.41
Intercept Differences for Sex	8	9	.2038	.1852	.01861	1	1,380	32.25 **
Slope Differences for Ethnicity	10	11	.2095	.2053	.00411	2	1,377	3.58
Intercept Differences for Ethnicity	11	12	.2053	.1852	.02018	2	1,379	17.51 **
Biology I - II 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2250	.2181	.00693	1	335	2.99
Intercept Differences for Sex	8	9	.2181	.1652	.05287	1	336	22.72 **
Biology I - II 1985 - 1986 Sophomore (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1708	.1673	.00349	2	333	0.70
Intercept Differences for Ethnicity	11	12	.1673	.1652	.00204	2	335	0.41
Biology I - II 1984 - 1985 Junior (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2349	.2339	.00096	1	397	0.50
Sex & Ethnicity Interaction Test	2	3	.2339	.2339	.00000	1	398	0.00
Slope Differences for Sex	7	8	.2234	.2147	.00872	1	401	4.50
Intercept Differences for Sex	8	9	.2147	.1825	.03222	1	402	16.49 **
Slope Differences for Ethnicity	10	11	.1964	.1922	.00423	1	401	2.11
Intercept Differences for Ethnicity	11	12	.1922	.1825	.00972	1	402	4.84
Biology I - II 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.3155	.3010	.01441	1	147	3.09
Intercept Differences for Sex	8	9	.3010	.2592	.04188	1	148	8.87 *
Biology I - II 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.3459	.3433	.00257	1	195	0.77
Intercept Differences for Sex	8	9	.3433	.3113	.03199	1	196	9.55 *
Biology I - II 1984 - 1985 Senior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.3697	.3689	.00084	1	176	0.23
Intercept Differences for Ethnicity	11	12	.3689	.3289	.04001	1	177	11.22 *

Table D-1. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	d'2	F
Chemistry I - II 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2096	.2022	.00741	1	128	1.20
Intercept Differences for Sex	8	9	.2022	.1781	.02414	1	129	3.90
Chemistry I - II 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0924	.0837	.00874	1	168	1.62
Intercept Differences for Sex	8	9	.0837	.0559	.02776	1	169	5.12
Chemistry I - II 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1342	.1295	.00473	1	430	2.35
Intercept Differences for Sex	8	9	.1295	.0815	.04797	1	431	23.75 **
Chemistry I - II 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1911	.1894	.00171	1	426	0.90
Intercept Differences for Sex	8	9	.1894	.1419	.04741	1	427	24.97 **
Chemistry I - II 1984 - 1985 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1653	.1607	.00459	1	426	2.34
Intercept Differences for Ethnicity	11	12	.1607	.1419	.01873	1	427	9.53 *
Chemistry I - II 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1535	.1469	.00651	1	137	1.05
Intercept Differences for Sex	8	9	.1470	.0874	.05959	1	138	9.64 *
Chemistry I - II 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0999	.0998	.00011	1	137	0.02
Intercept Differences for Ethnicity	11	12	.0998	.0874	.01246	1	138	1.91
Chemistry I - II 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2180	.2148	.00312	1	156	0.62
Intercept Differences for Sex	8	9	.2148	.2143	.00053	1	157	0.11
Chemistry I - II 1984 - 1985 Senior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2584	.2207	.03770	1	156	7.93 *
Physics I - II 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1322	.1216	.01058	1	232	2.83
Intercept Differences for Sex	8	9	.1216	.0838	.03783	1	233	10.03 *
Physics I - II 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1997	.1996	.00007	1	166	0.01
Intercept Differences for Sex	8	9	.1996	.1576	.04199	1	167	8.76 *

Table D-1. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Government & Civics 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2830	.2814	.00167	1	344	0.80
Intercept Differences for Sex	8	9	.2814	.2726	.00877	1	345	4.21
Government & Civics 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1468	.1372	.00962	1	155	1.75
Intercept Differences for Sex	8	9	.1372	.1072	.03000	1	156	5.42
Government & Civics 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1478	.1414	.00636	1	417	3.11
Intercept Differences for Sex	8	9	.1414	.1116	.02979	1	418	14.50 **
Government & Civics 1985 - 1986 Sophomore (Ethnicity = White & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1390	.1384	.00057	1	388	0.26
Intercept Differences for Ethnicity	11	12	.1384	.1194	.01901	1	389	8.58 *
Government & Civics 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2400	.2373	.00275	1	456	1.65
Intercept Differences for Sex	8	9	.2373	.2168	.02044	1	457	12.25 **
Government & Civics 1984 - 1985 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2219	.2211	.00084	1	456	0.49
Intercept Differences for Ethnicity	11	12	.2211	.2168	.00422	1	457	2.48
Government & Civics 1985 - 1986 Junior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2713	.2699	.00140	1	707	1.36
Sex & Ethnicity Interaction Test	2	3	.2699	.2695	.00040	1	708	0.39
Slope Differences for Sex	7	8	.2630	.2580	.00507	1	711	4.90
Intercept Differences for Sex	8	9	.2580	.2282	.02975	1	712	28.55 **
Slope Differences for Ethnicity	10	11	.2348	.2347	.00010	1	711	0.10
Intercept Differences for Ethnicity	11	12	.2347	.2282	.00647	1	712	6.02
Government & Civics 1984 - 1985 Senior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2629	.2623	.00062	1	602	0.51
Sex & Ethnicity Interaction Test	2	3	.2623	.2622	.00007	1	603	0.06
Slope Differences for Sex	7	8	.2505	.2501	.00041	1	606	0.33
Intercept Differences for Sex	8	9	.2501	.2395	.01056	1	607	8.54 *
Slope Differences for Ethnicity	10	11	.2526	.2513	.00138	1	606	1.12
Intercept Differences for Ethnicity	11	12	.2512	.2395	.01172	1	607	9.50 *
History 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2812	.2806	.00057	2	1,319	0.52
Sex & Ethnicity Interaction Test	2	3	.2806	.2783	.00235	2	1,321	2.16
Slope Differences for Sex	7	8	.2741	.2740	.00019	1	1,327	0.18
Intercept Differences for Sex	8	9	.2740	.2404	.03359	1	1,328	61.45 **
Slope Differences for Ethnicity	10	11	.2480	.2430	.00493	2	1,325	4.34
Intercept Differences for Ethnicity	11	12	.2430	.2404	.00261	2	1,327	2.29

Table D-1. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
History 1985 - 1986 Freshmen (Ethnicity White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2684	.2684	.00000	1	1,343	0.00
Sex & Ethnicity Interaction Test	2	3	.2684	.2681	.00029	1	1,344	0.52
Slope Differences for Sex	7	8	.2670	.2670	.00006	1	1,347	0.10
Intercept Differences for Sex	8	9	.2670	.2571	.00990	1	1,348	18.21 **
Slope Differences for Ethnicity	10	11	.2582	.2571	.00106	1	1,347	1.92
Intercept Differences for Ethnicity	11	12	.2571	.2571	.00005	1	1,348	0.08
History 1984 - 1985 Sophomore (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2641	.2636	.00050	1	1,430	0.98
Sex & Ethnicity Interaction Test	2	3	.2636	.2618	.00180	1	1,431	3.50
Slope Differences for Sex	7	8	.2606	.2606	.00000	1	1,434	0.01
Intercept Differences for Sex	8	9	.2606	.2408	.01977	1	1,435	38.37 **
Slope Differences for Ethnicity	10	11	.2422	.2421	.00006	1	1,434	0.12
Intercept Differences for Ethnicity	11	12	.2421	.2408	.00130	1	1,435	2.47
History 1985 - 1986 Sophomore (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2144	.2138	.00063	2	1,465	0.58
Sex & Ethnicity Interaction Test	2	3	.2138	.2081	.00569	2	1,467	5.31 *
Slope Differences for Sex	7	8	.1944	.1931	.00127	1	1,473	2.32
Intercept Differences for Sex	8	9	.1931	.1535	.03963	1	1,474	72.39 **
Slope Differences for Ethnicity	10	11	.1707	.1616	.00908	2	1,471	8.05 **
History 1984 - 1985 Junior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2946	.2944	.00024	1	1,102	0.37
Sex & Ethnicity Interaction Test	2	3	.2944	.2936	.00079	1	1,103	1.24
Slope Differences for Sex	7	8	.2918	.2914	.00046	1	1,106	0.72
Intercept Differences for Sex	8	9	.2914	.2583	.03308	1	1,107	51.67 **
Slope Differences for Ethnicity	10	11	.2601	.2601	.00007	1	1,106	0.10
Intercept Differences for Ethnicity	11	12	.2601	.2583	.00179	1	1,107	2.68
History 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2295	.2198	.00976	1	428	5.42
Intercept Differences for Sex	8	9	.2198	.1801	.03965	1	429	21.80 **
History 1985 - 1986 Junior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1786	.1780	.00062	1	409	0.31
Intercept Differences for Ethnicity	11	12	.1780	.1747	.00328	1	410	1.64
History 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.3191	.3152	.00389	1	423	2.42
Intercept Differences for Sex	8	9	.3152	.3074	.00786	1	424	4.87
History 1984 - 1985 Senior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.3573	.3549	.00247	1	402	1.54
Intercept Differences for Ethnicity	11	12	.3549	.3288	.02604	1	403	16.27 **

Table D-1. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df1	df2	F
Foreign Language 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2528	.2528	.00001	1	1,012	0.01
Intercept Differences for Sex	8	9	.2528	.1957	.05705	1	1,013	77.34 **
Foreign Language 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2197	.2163	.00341	2	1,010	2.21
Intercept Differences for Ethnicity	11	12	.2163	.1957	.02060	2	1,012	13.30 **
Foreign Language 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1931	.1907	.00249	1	797	2.46
Intercept Differences for Sex	8	9	.1907	.1413	.04936	1	798	48.67 **
Foreign Language 1985 - 1986 Freshmen (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1576	.1501	.00747	2	795	3.53
Intercept Differences for Ethnicity	11	12	.1501	.1413	.00884	2	797	4.15
Foreign Language 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2087	.2083	.00046	1	892	0.52
Intercept Differences for Sex	8	9	.2083	.1229	.08539	1	893	96.31 **
Foreign Language 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1398	.1349	.00490	2	890	2.53
Intercept Differences for Ethnicity	11	12	.1349	.1229	.01201	2	892	6.19 *
Foreign Language 1985 - 1986 Sophomore (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1612	.1598	.00143	1	604	1.03
Sex & Ethnicity Interaction Test	2	3	.1598	.1595	.00022	1	605	0.16
Slope Differences for Sex	7	8	.1453	.1436	.00165	1	608	1.17
Intercept Differences for Sex	8	9	.1436	.0832	.06044	1	609	42.98 **
Slope Differences for Ethnicity	10	11	.0985	.0970	.00155	1	608	1.05
Intercept Differences for Ethnicity	11	12	.0970	.0832	.01383	1	609	9.33 *
Foreign Language 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2171	.2124	.00463	1	480	2.84
Intercept Differences for Sex	8	9	.2124	.1347	.07775	1	481	47.48 **
Foreign Language 1984 - 1985 Junior (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1566	.1546	.00197	2	478	0.56
Intercept Differences for Ethnicity	11	12	.1546	.1347	.01993	2	480	5.66 *
Foreign Language 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1894	.1742	.01513	1	247	4.61
Intercept Differences for Sex	8	9	.1742	.1271	.04709	1	248	14.14 **

Table D-1. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Foreign Language 1985 - 1986 Junior (Ethnicity = White & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0986	.0820	.01656	1	205	3.77
Intercept Differences for Ethnicity	11	12	.0820	.0801	.00188	1	206	0.42
Foreign Language 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1634	.1620	.00138	1	224	0.37
Intercept Differences for Sex	8	9	.1620	.1450	.01705	1	225	4.58
Foreign Language 1984 - 1985 Senior (Ethnicity = White & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0907	.0873	.00340	1	185	0.69
Intercept Differences for Ethnicity	11	12	.0873	.0829	.00441	1	186	0.90
Secretary & Office Education 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1019	.1014	.00050	1	215	0.12
Intercept Differences for Ethnicity	11	12	.1014	.1008	.00063	1	216	0.15
Secretary & Office Education 1984 - 1985 Senior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1190	.1141	.00490	1	220	1.22
Intercept Differences for Ethnicity	11	12	.1141	.1082	.00589	1	221	1.47
Typing & Word Processing 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2246	.2246	.00000	1	507	0.00
Intercept Differences for Sex	8	9	.2246	.2145	.01013	1	508	6.63
Typing & Word Processing 1984-1985 Freshmen (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2167	.2154	.00129	2	505	0.41
Intercept Differences for Ethnicity	11	12	.2154	.2145	.00093	2	507	0.30
Typing & Word Processing 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1681	.1679	.00023	1	492	0.14
Intercept Differences for Sex	8	9	.1679	.1344	.03349	1	493	19.84 **
Typing & Word Processing 1985-1986 Freshmen (Ethnicity = White & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1342	.1324	.00177	1	445	0.91
Intercept Differences for Ethnicity	11	12	.1324	.1278	.00464	1	446	2.39
Typing & Word Processing 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1967	.1955	.00113	1	631	0.89
Intercept Differences for Sex	8	9	.1955	.1523	.04326	1	632	33.98 **
Typing & Word Processing 1984-1985 Sophomore (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1540	.1539	.00009	2	629	0.03
Intercept Differences for Ethnicity	11	12	.1539	.1523	.00166	2	631	0.62

Table D-1. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Typing & Word Processing 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1620	.1564	.00563	1	405	2.72
Intercept Differences for Sex	8	9	.1564	.1440	.01246	1	406	6.00
Typing & Word Processing 1985-1986 Sophomore (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1419	.1408	.00109	1	374	0.48
Intercept Differences for Ethnicity	11	12	.1408	.1394	.00147	1	375	0.64
Typing & Word Processing 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2159	.2136	.00227	1	391	1.13
Intercept Differences for Sex	8	9	.2136	.1491	.06446	1	392	32.13 **
Typing & Word Processing 1984-1985 Junior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1595	.1591	.00048	1	359	0.20
Intercept Differences for Ethnicity	11	12	.1591	.1531	.00592	1	360	2.53
Typing & Word Processing 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1529	.1508	.00214	1	221	0.56
Intercept Differences for Sex	8	9	.1508	.1068	.04400	1	222	11.50 **
Typing & Word Processing 1985-1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1262	.1192	.00696	1	221	1.76
Intercept Differences for Ethnicity	11	12	.1192	.1068	.01241	1	222	3.13
Typing & Word Processing 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2188	.2174	.00142	1	216	0.39
Intercept Differences for Sex	8	9	.2174	.1894	.02806	1	217	7.78 *
Accounting/Bookkeeping 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2104	.2086	.00182	1	311	0.72
Intercept Differences for Sex	8	9	.2086	.1534	.05515	1	312	21.74 **
Accounting/Bookkeeping 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2857	.2808	.00487	1	239	1.63
Intercept Differences for Sex	8	9	.2808	.1888	.09204	1	240	30.71 **
Accounting/Bookkeeping 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1066	.0986	.00792	1	185	1.64
Intercept Differences for Sex	8	9	.0986	.0650	.03367	1	186	6.95 *
Accounting/Bookkeeping 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1941	.1937	.00038	1	247	0.12
Intercept Differences for Sex	8	9	.1937	.1587	.03497	1	248	10.76 *

Table D-1. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Home Economics 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2148	.2128	.00197	1	547	1.37
Intercept Differences for Sex	8	9	.2128	.1679	.04492	1	548	31.27 **
Home Economics 1984-1985 Freshmen (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2310	.2287	.00229	1	519	1.54
Intercept Differences for Ethnicity	11	12	.2288	.1565	.07228	1	520	48.73**
Home Economics 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1782	.1778	.00046	1	312	0.17
Intercept Differences for Sex	8	9	.1778	.1173	.06050	1	313	23.03 **
Home Economics 1985-1986 Freshmen (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1219	.1216	.00029	1	312	0.10
Intercept Differences for Ethnicity	11	12	.1216	.1173	.00430	1	313	1.53
Home Economics 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1864	.1864	.00002	1	321	0.01
Intercept Differences for Sex	8	9	.1864	.1267	.05968	1	322	23.62 **
Home Economics 1984-1985 Sophomore (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1661	.1582	.00785	1	321	3.02
Intercept Differences for Ethnicity	11	12	.1582	.1267	.03154	1	322	12.07**
Home Economics 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1726	.1725	.00010	1	394	0.05
Intercept Differences for Sex	8	9	.1725	.1108	.06169	1	395	29.44 **
Home Economics 1985-1986 Sophomore (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1117	.1116	.00008	1	394	0.04
Intercept Differences for Ethnicity	11	12	.1116	.1108	.00083	1	395	0.37
Home Economics 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1547	.1547	.00001	1	279	0.00
Intercept Differences for Sex	8	9	.1547	.1236	.03108	1	280	10.29 *
Home Economics 1984-1985 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1268	.1268	.00001	1	279	0.00
Intercept Differences for Ethnicity	11	12	.1268	.1236	.00324	1	280	1.04
Home Economics 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1912	.1898	.00138	1	358	0.61
Intercept Differences for Sex	8	9	.1898	.0790	.11085	1	359	49.12 **
Home Economics 1985-1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0843	.0814	.00292	1	358	1.14
Intercept Differences for Ethnicity	11	12	.0814	.0790	.00241	1	359	0.94

Table D-1. (Concluded)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Home Economics 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1897	.1880	.00171	1	318	0.57
Intercept Differences for Sex	8	9	.1880	.1457	.04230	1	319	16.62 **
Home Economics 1984-1985 Senior (Ethnicity - White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1573	.1486	.00872	1	318	3.29
Intercept Differences for Ethnicity	11	12	.1486	.1457	.00285	1	319	1.07
Computer Programming 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2430	.2429	.00013	1	227	0.04
Intercept Differences for Sex	8	9	.2429	.1669	.07597	1	228	22.88 **
Computer Programming 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2182	.2170	.00115	1	240	0.35
Intercept Differences for Sex	8	9	.2170	.1957	.02134	1	241	6.57
Computer Programming 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.3068	.3055	.00134	1	157	0.30
Intercept Differences for Sex	8	9	.3055	.1926	.11286	1	158	25.68 **
Computer Programming 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1788	.1767	.00209	1	152	0.39
Intercept Differences for Sex	8	9	.1767	.1748	.00193	1	153	0.36

* $p < .01$.

** $p < .001$.

Table D-2. F-Tests of Significance for Verbal Composite

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df1	df2	F
English I - IV 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2267	.2263	.00043	2	2,422	0.67
Sex & Ethnicity Interaction Test	2	3	.2263	.2203	.00596	2	2,424	9.33 **
Consistent Over or Under prediction of Subgroup	2	4	.2263	.2209	.00540	3	2,424	5.64 **
Slope Differences for Sex	2	5	.2263	.2225	.00380	1	2,424	11.91 **
Slope Differences for Ethnicity	2	6	.2263	.2241	.00223	2	2,424	3.50
English I - IV 1985 - 1986 Freshmen (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1832	.1829	.00025	2	1,989	0.31
Sex & Ethnicity Interaction Test	2	3	.1829	.1798	.00314	2	1,991	3.83
Slope Differences for Sex	7	8	.1720	.1717	.00029	1	1,997	0.70
Intercept Differences for Sex	8	9	.1717	.1359	.03583	1	1,998	86.43 **
Slope Differences for Ethnicity	10	11	.1426	.1371	.00546	2	1,995	6.36 *
Intercept Differences for Ethnicity	11	12	.1371	.1359	.00123	2	1,997	1.43
English I - IV 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2545	.2545	.00003	2	2,296	0.05
Sex & Ethnicity Interaction Test	2	3	.2545	.2521	.00241	2	2,298	3.71
Slope Differences for Sex	7	8	.2519	.2421	.00972	1	2,304	29.93 **
Slope Differences for Ethnicity	10	11	.1911	.1909	.00023	2	2,302	0.33
Intercept Differences for Ethnicity	11	12	.1909	.1904	.00053	2	2,304	0.75
English I - IV 1985 - 1986 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2287	.2282	.00052	2	1,942	0.66
Sex & Ethnicity Interaction Test	2	3	.2282	.2267	.00154	2	1,944	1.94
Slope Differences for Sex	7	8	.2224	.2132	.00921	1	1,950	23.11 **
Slope Differences for Ethnicity	10	11	.1609	.1601	.00087	2	1,948	1.01
Intercept Differences for Ethnicity	11	12	.1601	.1542	.00582	2	1,950	6.75 *
English I - IV 1984 - 1985 Junior (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2319	.2316	.00030	2	1,721	0.34
Sex & Ethnicity Interaction Test	2	3	.2316	.2309	.00074	2	1,723	0.83
Slope Differences for Sex	7	8	.2283	.2195	.00885	1	1,729	19.84 **
Slope Differences for Ethnicity	10	11	.1484	.1470	.00137	2	1,727	1.39
Intercept Differences for Ethnicity	11	12	.1470	.1444	.00259	2	1,729	2.62
English I - IV 1985 - 1986 Junior (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2077	.2076	.00012	1	1,258	0.19
Sex & Ethnicity Interaction Test	2	3	.2076	.2072	.00038	1	1,259	0.60
Slope Differences for Sex	7	8	.2069	.1985	.00840	1	1,262	13.37 **
Slope Differences for Ethnicity	10	11	.1178	.1177	.00005	1	1,262	0.07
Intercept Differences for Ethnicity	11	12	.1177	.1175	.00021	1	1,263	0.30
English I - IV 1984 - 1985 Senior (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1737	.1721	.00163	2	1,275	1.25
Sex & Ethnicity Interaction Test	2	3	.1721	.1714	.00066	2	1,277	0.51
Slope Differences for Sex	7	8	.1634	.1594	.00399	1	1,283	6.12
Intercept Differences for Sex	8	9	.1594	.1307	.02873	1	1,284	43.89 **
Slope Differences for Ethnicity	10	11	.1355	.1310	.00446	2	1,281	3.31
Intercept Differences for Ethnicity	11	12	.1311	.1307	.00035	2	1,283	0.26

Table D-2. (Continued)

F Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
General Math 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.0543	.0538	.00058	2	1,167	0.36
Sex & Ethnicity Interaction Test	2	3	.0538	.0494	.00434	2	1,169	2.68
Slope Differences for Sex	7	8	.0474	.0474	.00009	1	1,175	0.11
Intercept Differences for Sex	8	9	.0474	.0387	.00870	1	1,176	10.74 *
Slope Differences for Ethnicity	10	11	.0411	.0408	.00031	2	1,173	0.19
Intercept Differences for Ethnicity	11	12	.0408	.0387	.00217	2	1,175	1.33
General Math 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.0529	.0525	.00046	2	736	0.18
Sex & Ethnicity Interaction Test	2	3	.0525	.0465	.00602	2	738	2.34
Slope Differences for Sex	7	8	.0363	.0362	.00005	1	744	0.04
Intercept Differences for Sex	8	9	.0362	.0338	.00248	1	745	1.91
Slope Differences for Ethnicity	10	11	.0443	.0419	.00241	2	742	0.94
Intercept Differences for Ethnicity	11	12	.0419	.0338	.00807	2	744	3.13
General Math 1985 - 1986 Sophomore (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1001	.0955	.00461	1	305	1.56
Sex & Ethnicity Interaction Test	2	3	.0955	.0935	.00199	1	306	0.67
Slope Differences for Sex	7	8	.0792	.0788	.00043	1	309	0.14
Intercept Differences for Sex	8	9	.0788	.0411	.03767	1	310	12.68 **
Slope Differences for Ethnicity	10	11	.0549	.0538	.00117	1	309	0.38
Intercept Differences for Ethnicity	11	12	.0537	.0411	.01261	1	310	4.13
General Math 1984 - 1985 Junior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.0484	.0472	.00123	1	266	0.34
Sex & Ethnicity Interaction Test	2	3	.0472	.0471	.00007	1	267	0.02
Slope Differences for Sex	7	8	.0392	.0376	.00161	1	270	0.45
Intercept Differences for Sex	8	9	.0376	.0147	.02295	1	271	6.46
Slope Differences for Ethnicity	10	11	.0213	.0196	.00165	1	270	0.45
Intercept Differences for Ethnicity	11	12	.0196	.0147	.00497	1	271	1.37
General Math 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1142	.1108	.00340	1	222	0.85
Intercept Differences for Sex	8	9	.1108	.0831	.02770	1	223	6.95 *
General Math 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1086	.1050	.00356	1	195	0.78
Intercept Differences for Ethnicity	11	12	.1050	.1036	.00141	1	196	0.31
General Math 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0469	.0456	.00133	1	230	0.32
Intercept Differences for Sex	8	9	.0456	.0452	.00033	1	231	0.08
General Math 1984 - 1935 Senior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0851	[illegible]	[illegible]	1	[illegible]	[illegible]
Intercept Differences for Ethnicity	11	12	.0851	.0600	.02505	1	204	5.59

Table D-2. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Algebra 1984 - 1985 Freshmen (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1462	.1406	.00559	1	1,180	7.72 *
Sex & Ethnicity Interaction Test	2	3	.1406	.1405	.00007	1	1,181	0.09
Slope Differences for Sex	7	8	.1388	.1357	.00310	1	1,184	4.27
Intercept Differences for Sex	8	9	.1357	.0987	.03702	1	1,185	50.76 **
Slope Differences for Ethnicity	10	11	.1042	.1014	.00281	1	1,184	3.71
Intercept Differences for Ethnicity	11	12	.1014	.0987	.00266	1	1,185	3.51
Algebra 1985 - 1986 Freshmen (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1421	.1421	.00000	1	708	0.00
Sex & Ethnicity Interaction Test	2	3	.1421	.1402	.00198	1	709	1.64
Slope Differences for Sex	7	8	.1366	.1359	.00068	1	712	0.56
Intercept Differences for Sex	8	9	.1359	.0995	.03645	1	713	30.08 **
Slope Differences for Ethnicity	10	11	.1031	.1029	.00016	1	712	0.13
Intercept Differences for Ethnicity	11	12	.1029	.0995	.00343	1	713	2.73
Algebra 1984 - 1985 Sophomore (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.0909	.0909	.00004	1	871	0.04
Sex & Ethnicity Interaction Test	2	3	.0909	.0859	.00494	1	872	4.74
Slope Differences for Sex	7	8	.0832	.0818	.00140	1	875	1.34
Intercept Differences for Sex	8	9	.0818	.0584	.02346	1	876	22.38 **
Slope Differences for Ethnicity	10	11	.0602	.0584	.00178	1	875	1.66
Intercept Differences for Ethnicity	11	12	.0584	.0584	.00007	1	876	0.06
Algebra 1985 - 1986 Sophomore (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.0880	.0875	.00052	1	617	0.35
Sex & Ethnicity Interaction Test	2	3	.0875	.0834	.00412	1	618	2.79
Slope Differences for Sex	7	8	.0745	.0725	.00205	1	621	1.37
Intercept Differences for Sex	8	9	.0725	.0586	.01389	1	622	9.32 *
Slope Differences for Ethnicity	10	11	.0653	.0645	.00079	1	621	0.53
Intercept Differences for Ethnicity	11	12	.0645	.0586	.00595	1	622	3.95
Algebra 1984 - 1985 Junior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1234	.1217	.00172	1	489	0.96
Sex & Ethnicity Interaction Test	2	3	.1217	.1195	.00220	1	490	1.23
Slope Differences for Sex	7	8	.1068	.1065	.00028	1	493	0.15
Intercept Differences for Sex	8	9	.1065	.0788	.02774	1	494	15.34 **
Slope Differences for Ethnicity	10	11	.0919	.0801	.01182	1	493	6.42
Intercept Differences for Ethnicity	11	12	.0801	.0783	.00132	1	494	0.71
Algebra 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1011	.0993	.00180	1	273	0.55
Intercept Differences for Sex	8	9	.0993	.0933	.00602	1	274	1.83
Algebra 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1010	.0974	.00365	1	273	1.11
Intercept Differences for Ethnicity	11	12	.0974	.0932	.00410	1	274	1.24

Table D-2. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Algebra 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0725	.0701	.00238	1	265	0.68
Intercept Differences for Sex	8	9	.0701	.0366	.03355	1	266	9.60 *
Algebra 1984 - 1985 Senior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0548	.0372	.01758	1	265	4.93
Intercept Differences for Ethnicity	11	12	.0373	.0366	.00069	1	266	0.19
Geometry 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1619	.1617	.00016	1	511	0.10
Intercept Differences for Sex	8	9	.1617	.1592	.00258	1	512	1.58
Geometry 1985 - 1986 Freshmen (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1643	.1623	.00198	2	509	0.60
Intercept Differences for Ethnicity	11	12	.1624	.1591	.00322	2	511	0.98
Geometry 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1570	.1560	.00096	1	561	0.64
Intercept Differences for Sex	8	9	.1560	.1504	.00562	1	562	3.74
Geometry 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1564	.1534	.00298	2	559	0.99
Intercept Differences for Ethnicity	11	12	.1534	.1504	.00297	2	561	0.98
Geometry 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2009	.2005	.00034	1	410	0.17
Intercept Differences for Sex	8	9	.2005	.1805	.02000	1	411	10.28 *
Geometry 1985 - 1986 Sophomore (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2095	.1903	.01925	1	371	9.03 *
Geometry 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1418	.1413	.00048	1	305	0.17
Intercept Differences for Sex	8	9	.1413	.1259	.01541	1	306	5.49
Geometry 1984 - 1985 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1296	.1290	.00054	1	305	0.19
Intercept Differences for Ethnicity	11	12	.1290	.1259	.00312	1	306	1.09
Geometry 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0973	.0964	.00088	1	123	0.12
Intercept Differences for Sex	8	9	.0965	.0928	.00362	1	124	0.50
Geometry 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2213	.1980	.02332	1	123	3.68
Intercept Differences for Ethnicity	11	12	.1980	.0928	.10512	1	124	16.25 **

Table D-2. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Geometry 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1383	.1373	.00097	1	107	0.12
Intercept Differences for Sex	8	9	.1373	.1326	.00475	1	108	0.60
Geometry 1984 - 1985 Senior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1725	.1714	.00106	1	107	0.14
Intercept Differences for Ethnicity	11	12	.1714	.1326	.03887	1	108	5.07
Calculus 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0549	.0521	.00281	1	147	0.44
Intercept Differences for Sex	8	9	.0521	.0500	.00213	1	148	0.33
General Science 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2404	.2372	.00324	2	1,95[illegible]	4.17
Sex & Ethnicity Interaction Test	2	3	.2372	.2285	.00870	2	1,958	11.16 **
Consistent Over or Under prediction of Subgroup	2	4	.2372	.2358	.00141	3	1,958	1.21
General Science 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1191	.1181	.00097	1	274	0.30
Intercept Differences for Sex	8	9	.1181	.1097	.00842	1	275	2.63
General Science 1985 - 1986 Freshmen (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1267	.1148	.01186	1	240	3.26
Intercept Differences for Ethnicity	11	12	.1148	.1148	.00000	1	241	0.00
General Science 1984 - 1985 Sophomore (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2312	.2311	.00013	1	341	0.06
Sex & Ethnicity Interaction Test	2	3	.2311	.2189	.01218	1	342	5.42
Slope Differences for Sex	7	8	.1997	.1993	.00039	1	345	0.17
Intercept Differences for Sex	8	9	.1993	.1611	.03825	1	346	16.53 **
Slope Differences for Ethnicity	10	11	.1870	.1811	.00590	1	345	2.50
Intercept Differences for Ethnicity	11	12	.1812	.1611	.02004	1	346	8.47 *
General Science 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1785	.1747	.00360	1	183	0.85
Intercept Differences for Sex	8	9	.1747	.1469	.02776	1	184	6.19
General Science 1985 - 1986 Sophomore (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1914	.1822	.00922	1	158	1.80
Intercept Differences for Ethnicity	11	12	.1822	.1596	.02257	1	159	4.39
General Science 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0680	.0673	.00072	1	174	0.13
Intercept Differences for Sex	8	9	.0673	.0479	.01933	1	175	3.63
General Science 1984 - 1985 Junior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1335	.1284	.00510	1	149	0.88
Intercept Differences for Ethnicity	11	12	.1284	.0752	.05316	1	150	9.15 *

Table D-2. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
General Science 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2397	.2393	.00047	1	258	0.16
Intercept Differences for Sex	8	9	.2393	.2257	.01362	1	259	4.64
General Science 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2339	.2258	.00812	1	258	2.73
Intercept Differences for Ethnicity	11	12	.2258	.2257	.00010	1	259	0.03
General Science 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1104	.1102	.00014	1	182	0.03
Intercept Differences for Sex	8	9	.1102	.0880	.02223	1	183	4.57
Biology I - II 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1805	.1805	.00005	1	299	0.02
Intercept Differences for Sex	8	9	.1805	.1645	.01601	1	300	5.86
Biology I - II 1984 - 1985 Freshmen (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1652	.1649	.00030	1	299	0.11
Intercept Differences for Ethnicity	11	12	.1649	.1645	.00048	1	300	0.17
Biology I - II 1985 - 1986 Freshmen (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1661	.1661	.00000	1	1,119	0.00
Sex & Ethnicity Interaction Test	2	3	.1661	.1659	.00021	1	1,120	0.28
Slope Differences for Sex	7	8	.1640	.1640	.00001	1	1,123	0.02
Intercept Differences for Sex	8	9	.1640	.1350	.02892	1	1,124	38.88 **
Slope Differences for Ethnicity	10	11	.1370	.1369	.00001	1	1,123	0.01
Intercept Differences for Ethnicity	11	12	.1369	.1350	.00189	1	1,124	2.46
Biology I - II 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2267	.2263	.00031	2	1,371	0.27
Sex & Ethnicity Interaction Test	2	3	.2264	.2160	.01040	2	1,373	9.23 **
Consistent Over or Under prediction of Subgroup	2	4	.2264	.2088	.01753	3	1,373	10.37 **
Slope Differences for Sex	2	5	.2264	.2102	.01616	1	1,373	28.69 **
Slope Differences for Ethnicity	2	6	.2264	.2247	.00166	2	1,373	1.47
Biology I - II 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2070	.1924	.01464	1	335	6.18
Intercept Differences for Sex	8	9	.1924	.1348	.05755	1	336	23.94 **
Biology I - II 1985 - 1986 Sophomore (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1402	.1375	.00271	2	333	0.52
Intercept Differences for Ethnicity	11	12	.1375	.1348	.00261	2	335	0.51

Table D-2. (Continued)

F-Test Comparison	Comparison		R^2					
	Full	Restricted	Full	Restricted	R^2 Change	df_1	df_2	F
Biology I - II 1984 - 1985 Junior (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2260	.2260	.00001	1	397	0.00
Sex & Ethnicity Interaction Test	2	3	.2260	.2249	.00104	1	398	0.53
Slope Differences for Sex	7	8	.2102	.2068	.00343	1	401	1.74
Intercept Differences for Sex	8	9	.2068	.1768	.03000	1	402	15.21 *
Slope Differences for Ethnicity	10	11	.1957	.1915	.00425	1	401	2.12
Intercept Differences for Ethnicity	11	12	.1915	.1768	.01469	1	402	7.30 *
Biology I - II 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.3612	.3377	.02346	1	147	5.40
Intercept Differences for Sex	8	9	.3377	.3044	.03334	1	148	7.45 *
Biology I - II 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.3372	.3354	.00184	1	195	0.54
Intercept Differences for Sex	8	9	.3354	.2998	.03552	1	196	10.47 *
Biology I - II 1984 - 1985 Senior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.3624	.3606	.00186	1	176	0.51
Intercept Differences for Ethnicity	11	12	.3606	.3293	.03129	1	177	8.66 *
Chemistry I - II 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1195	.1189	.00061	1	128	0.09
Intercept Differences for Sex	8	9	.1189	.0940	.02490	1	129	3.65
Chemistry I - II 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0789	.0614	.01752	1	168	3.20
Intercept Differences for Sex	8	9	.0614	.0373	.02410	1	169	4.34
Chemistry I - II 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1055	.0967	.00878	1	430	4.22
Intercept Differences for Sex	8	9	.0967	.0537	.04306	1	431	20.55
Chemistry I - II 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1423	.1412	.00104	1	426	0.52
Intercept Differences for Sex	8	9	.1412	.1015	.03975	1	427	19.76
Chemistry I - II 1984 - 1985 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1299	.1225	.00739	1	426	
Intercept Differences for Ethnicity	11	12	.1225	.1015	.02099	1	427	10.21
Chemistry I - II 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1172	.1112	.00597	1	137	0.93
Intercept Differences for Sex	8	9	.1112	.0592	.05203	1	138	8.08
Chemistry I - II 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0790	.0680	.01097	1	137	1.63
Intercept Differences for Ethnicity	11	12	.0680	.0592	.00883	1	138	1.31

Table D-2. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Chemistry I - II 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1338	.1337	.00002	1	156	0.00
Intercept Differences for Sex	8	9	.1337	.1333	.00040	1	157	0.07
Chemistry I - II 1984 - 1985 Senior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1556	.1357	.01993	1	156	3.68
Intercept Differences for Ethnicity	11	12	.1357	.1333	.00235	1	157	0.43
Physics I - II 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0768	.0729	.00392	1	232	0.99
Intercept Differences for Sex	8	9	.0729	.0412	.03174	1	233	7.98 *
Physics I - II 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1540	.1538	.00023	1	166	0.04
Intercept Differences for Sex	8	9	.1538	.1154	.03842	1	167	7.58 *
Government & Civics 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2359	.2339	.00209	1	344	0.94
Intercept Differences for Sex	8	9	.2339	.2219	.01190	1	345	5.36
Government & Civics 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1611	.1401	.02101	1	155	3.88
Intercept Differences for Sex	8	9	.1400	.1107	.02931	1	156	5.32
Government & Civics 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1538	.1408	.01304	1	417	6.43
Intercept Differences for Sex	8	9	.1408	.1101	.03068	1	418	14.92 **
Government & Civics 1985 - 1986 Sophomore (Ethnicity = White & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1379	.1364	.00150	1	388	0.67
Intercept Differences for Ethnicity	11	12	.1364	.1179	.01847	1	389	8.32 *
Government & Civics 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2310	.2289	.00216	1	456	1.28
Intercept Differences for Sex	8	9	.2289	.2117	.01715	1	457	10.16 *
Government & Civics 1984 - 1985 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2140	.2135	.00046	1	456	0.26
Intercept Differences for Ethnicity	11	12	.2135	.2118	.00177	1	457	1.03
Government & Civics 1985 - 1986 Junior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2152	.2151	.00010	1	707	0.09
Sex & Ethnicity Interaction Test	2	3	.2151	.2151	.00000	1	708	0.00
Slope Differences for Sex	7	8	.2087	.2015	.00713	1	711	6.41
Intercept Differences for Sex	8	9	.2015	.1766	.02496	1	712	22.25 **
Slope Differences for Ethnicity	10	11	.1827	.1826	.00013	1	711	0.11
Intercept Differences for Ethnicity	11	12	.1826	.1766	.00603	1	712	5.25

Table D-2. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Government & Civics 1984 - 1985 Senior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2339	.2336	.00028	1	602	0.22
Sex & Ethnicity Interaction Test	2	3	.2336	.2334	.00020	1	603	0.16
Slope Differences for Sex	7	8	.2188	.2181	.00075	1	606	0.58
Intercept Differences for Sex	8	9	.2181	.2081	.00994	1	607	7.72 *
Slope Differences for Ethnicity	10	11	.2242	.2202	.00407	1	606	3.18
Intercept Differences for Ethnicity	11	12	.2202	.2081	.01205	1	607	9.38 *
History 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2711	.2696	.00146	2	1,319	1.32
Sex & Ethnicity Interaction Test	2	3	.2696	.2673	.00231	2	1,321	2.09
Slope Differences for Sex	7	8	.2601	.2596	.00057	1	1,327	1.01
Intercept Differences for Sex	8	9	.2596	.2285	.03106	1	1,328	55.71 *
Slope Differences for Ethnicity	10	11	.2411	.2348	.00628	2	1,325	5.48 *
Intercept Differences for Ethnicity	11	12	.2348	.2285	.00625	2	1,327	5.42 *
History 1985 - 1986 Freshmen (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2451	.2450	.00013	1	1,343	0.22
Sex & Ethnicity Interaction Test	2	3	.2450	.2445	.00041	1	1,344	0.74
Slope Differences for Sex	7	8	.2420	.2420	.00001	1	1,347	0.02
Intercept Differences for Sex	8	9	.2420	.2330	.00901	1	1,348	16.02 *
Slope Differences for Ethnicity	10	11	.2353	.2332	.00209	1	1,347	3.69
Intercept Differences for Ethnicity	11	12	.2332	.2330	.00020	1	1,348	0.34
History 1984 - 1985 Sophomore (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2614	.2609	.00055	1	1,430	1.07
Sex & Ethnicity Interaction Test	2	3	.2609	.2585	.00238	1	1,431	4.61
Slope Differences for Sex	7	8	.2582	.2580	.00018	1	1,434	0.36
Intercept Differences for Sex	8	9	.2580	.2375	.02045	1	1,435	39.55 *
Slope Differences for Ethnicity	10	11	.2380	.2380	.00004	1	1,434	0.07
Intercept Differences for Ethnicity	11	12	.2380	.2375	.00045	1	1,435	0.86
History 1985 - 1986 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2120	.2113	.00072	2	1,465	0.67
Sex & Ethnicity Interaction Test	2	3	.2113	.2061	.00522	2	1,467	4.86 *
Slope Differences for Sex	7	8	.1959	.1939	.00200	1	1,473	3.66
Intercept Differences for Sex	8	9	.1939	.1574	.03653	1	1,474	66.80 *
Slope Differences for Ethnicity	10	11	.1709	.1626	.00838	2	1,471	7.43 *
History 1984 - 1985 Junior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2814	.2812	.00018	1	1,102	0.27
Sex & Ethnicity Interaction Test	2	3	.2812	.2799	.00133	1	1,103	2.04
Slope Differences for Sex	7	8	.2784	.2780	.00040	1	1,106	0.62
Intercept Differences for Sex	8	9	.2780	.2490	.02903	1	1,107	44.50 *
Slope Differences for Ethnicity	10	11	.2504	.2497	.00076	1	1,106	1.12
Intercept Differences for Ethnicity	11	12	.2497	.2490	.00072	1	1,107	1.06

Table D-2. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
History 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2165	.2113	.00520	1	428	2.84
Intercept Differences for Sex	8	9	.2113	.1779	.03342	1	429	18.18 **
History 1985 - 1986 Junior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1758	.1757	.00019	1	409	0.10
Intercept Differences for Ethnicity	11	12	.1757	.1750	.00069	1	410	0.34
History 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2778	.2758	.00206	1	423	1.21
Intercept Differences for Sex	8	9	.2758	.2689	.00683	1	424	4.00
History 1984 - 1985 Senior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.3128	.3111	.00163	1	402	0.96
Intercept Differences for Ethnicity	11	12	.3111	.2852	.02598	1	403	15.20 **
Foreign Language 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2061	.2054	.00070	1	1,012	0.89
Intercept Differences for Sex	8	9	.2054	.1512	.05419	1	1,013	69.09 **
Foreign Language 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1762	.1718	.00444	2	1,010	2.72
Intercept Differences for Ethnicity	11	12	.1718	.1512	.02054	2	1,012	12.55 **
Foreign Language 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1594	.1517	.00771	1	797	7.31 *
Foreign Language 1985 - 1986 Freshmen (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1247	.1140	.01067	2	795	4.85 *
Foreign Language 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1691	.1660	.00308	1	892	3.30
Intercept Differences for Sex	8	9	.1660	.0856	.08040	1	893	86.09 **
Foreign Language 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0988	.0953	.00350	2	890	1.73
Intercept Differences for Ethnicity	11	12	.0953	.0856	.00972	2	892	4.79 *
Foreign Language 1985 - 1986 Sophomore (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1324	.1319	.00054	1	604	0.37
Sex & Ethnicity Interaction Test	2	3	.1319	.1312	.00064	1	605	0.44
Slope Differences for Sex	7	8	.1205	.1163	.00416	1	608	2.87
Intercept Differences for Sex	8	9	.1163	.0634	.05290	1	609	36.46 **
Slope Differences for Ethnicity	10	11	.0744	.0735	.00091	1	608	0.60
Intercept Differences for Ethnicity	11	12	.0735	.0634	.01006	1	609	6.61
Foreign Language 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1599	.1587	.00123	1	480	0.71
Intercept Differences for Sex	8	9	.1587	.0895	.06919	1	481	39.56 **

Table D-2. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Foreign Language 1984 - 1985 Junior (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1139	.1119	.00202	2	478	0.54
Intercept Differences for Ethnicity	11	12	.1119	.0895	.02242	2	480	6.06 *
Foreign Language 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1573	.1515	.00578	1	247	1.70
Intercept Differences for Sex	8	9	.1515	.1136	.03787	1	248	11.07 *
Foreign Language 1985 - 1986 Junior (Ethnicity = White & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0971	.0747	.02242	1	205	5.09
Intercept Differences for Ethnicity	11	12	.0746	.0728	.00184	1	206	0.41
Foreign Language 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1201	.1175	.00262	1	224	0.67
Intercept Differences for Sex	8	9	.1175	.1037	.01384	1	225	3.53
Foreign Language 1984 - 1985 Senior (Ethnicity = White & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0598	.0536	.00626	1	185	1.23
Intercept Differences for Ethnicity	11	12	.0536	.0510	.00260	1	186	0.51
Secretary & Office Education 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0861	.0861	.00003	1	215	0.01
Intercept Differences for Ethnicity	11	12	.0861	.0857	.00041	1	216	0.10
Secretary & Office Education 1984 - 1985 Senior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0952	.0908	.00438	1	220	1.07
Intercept Differences for Ethnicity	11	12	.0908	.0832	.00766	1	221	1.86
Typing & Word Processing 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2200	.2200	.00005	1	507	0.03
Intercept Differences for Sex	8	9	.2200	.2094	.01055	1	508	6.87 *
Typing & Word Processing 1984-1985 Freshmen (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2155	.2112	.00413	2	505	1.39
Intercept Differences for Ethnicity	11	12	.2112	.2094	.00176	2	507	0.56
Typing & Word Processing 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1369	.1350	.00183	1	492	1.04
Intercept Differences for Sex	8	9	.1350	.1096	.02548	1	493	14.52 **
Typing & Word Processing 1985-1986 Freshmen (Ethnicity = White & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1038	.1038	.00001	1	445	0.00
Intercept Differences for Ethnicity	11	12	.1038	.0970	.00676	1	446	3.36
Typing & Word Processing 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1595	.1591	.00041	1	631	0.31
Intercept Differences for Sex	8	9	.1591	.1215	.03759	1	632	28.25 **

Table D-2. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Typing & Word Processing 1984-1985 Sophomore (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1247	.1228	.00187	2	629	0.67
Intercept Differences for Ethnicity	11	12	.1228	.1215	.00130	2	631	0.47
Typing & Word Processing 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1279	.1185	.00941	1	405	4.37
Intercept Differences for Sex	8	9	.1185	.1105	.00795	1	406	3.66
Typing & Word Processing 1985-1986 Sophomore (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1090	.1089	.00014	1	374	0.06
Intercept Differences for Ethnicity	11	12	.1089	.1063	.00260	1	375	1.09
Typing & Word Processing 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1832	.1830	.00024	1	391	0.12
Intercept Differences for Sex	8	9	.1830	.1191	.06392	1	392	30.67 **
Typing & Word Processing 1984-1985 Junior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1372	.1367	.00045	1	359	0.19
Intercept Differences for Ethnicity	11	12	.1367	.1304	.00638	1	360	2.66
Typing & Word Processing 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1130	.1114	.00154	1	221	0.38
Intercept Differences for Sex	8	9	.1114	.0721	.03936	1	222	9.83 *
Typing & Word Processing 1985-1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0965	.0875	.00898	1	221	2.20
Intercept Differences for Ethnicity	11	12	.0875	.0721	.01540	1	222	3.75
Typing & Word Processing 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1834	.1767	.00669	1	216	1.77
Intercept Differences for Sex	8	9	.1767	.1505	.02619	1	217	6.90 *
Accounting/Bookkeeping 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1834	.1802	.00330	1	311	1.26
Intercept Differences for Sex	8	9	.1802	.1342	.04591	1	312	17.47 **
Accounting/Bookkeeping 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2596	.2566	.00296	1	239	0.96
Intercept Differences for Sex	8	9	.2566	.1719	.08476	1	240	27.37 **
Accounting/Bookkeeping 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0972	.0947	.00254	1	18[illegible]	[illegible].52
Intercept Differences for Sex	8	9	[illegible]	.0610	03368	1	186	6.92 *
Accounting/Bookkeeping 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1419	.1387	.00323	1	247	0.93
Intercept Differences for Sex	8	9	.1387	.0958	.04288	1	248	12.35 **

Table D-2. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Home Economics 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2222	.2222	.00000	1	547	0.00
Intercept Differences for Sex	8	9	.2222	.1767	.04551	1	548	32.06 *
Home Economics 1984-1985 Freshmen (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2368	.2361	.00062	1	519	0.42
Intercept Differences for Ethnicity	11	12	.2361	.1638	.07231	1	520	49.23**
Home Economics 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1797	.1796	.00006	1	312	0.02
Intercept Differences for Sex	8	9	.1796	.1139	.06573	1	313	25.08 *
Home Economics 1985-1986 Freshmen (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1168	.1165	.00027	1	312	0.10
Intercept Differences for Ethnicity	11	12	.1165	.1139	.00256	1	313	0.91
Home Economics 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1649	.1638	.00109	1	321	0.42
Intercept Differences for Sex	8	9	.1638	.1054	.05849	1	322	22.52
Home Economics 1984-1985 Sophomore (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1554	.1392	.01619	1	321	6.15
Intercept Differences for Ethnicity	11	12	.1392	.1054	.03382	1	322	12.65*
Home Economics 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1758	.1757	.00011	1	394	0.05
Intercept Differences for Sex	8	9	.1757	.1113	.06436	1	395	30.84
Home Economics 1985-1986 Sophomore (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1166	.1119	.00472	1	394	2.11
Intercept Differences for Ethnicity	11	12	.1119	.1113	.00056	1	395	0.25
Home Economics 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1407	.1388	.00194	1	279	0.63
Intercept Differences for Sex	8	9	.1388	.1107	.02811	1	280	9.14
Home Economics 1984-1985 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1132	.1130	.00022	1	279	0.07
Intercept Differences for Ethnicity	11	12	.1130	.1107	.00237	1	280	0.75
Home Economics 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1586	.1578	.00071	1	358	0.30
Intercept Differences for Sex	8	9	.1579	.0544	.10345	1	359	44.10
Home Economics 1985-1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0638	.0576	.00616	1	358	2.36
Intercept Differences for Ethnicity	11	12	.0576	.0544	.00323	1	359	1.23

Table D-2. (Concluded)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Home Economics 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1133	.1119	.00140	1	318	0.50
Intercept Differences for Sex	8	9	.1119	.0738	.03816	1	319	13.71 **
Home Economics 1984-1985 Senior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0769	.0745	.00239	1	318	0.82
Intercept Differences for Ethnicity	11	12	.0745	.0738	.00077	1	319	0.26
Computer Programming 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1820	.1807	.00128	1	227	0.35
Intercept Differences for Sex	8	9	.1807	.1041	.07656	1	228	21.31 **
Computer Programming 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1301	.1294	.00071	1	240	0.20
Intercept Differences for Sex	8	9	.1294	.1117	.01774	1	241	4.91
Computer Programming 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2440	.2440	.00001	1	157	0.00
Intercept Differences for Sex	8	9	.2440	.1442	.09980	1	158	20.86 **
Computer Programming 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1248	.1211	.00370	1	152	0.64
Intercept Differences for Sex	8	9	.1212	.1192	.00191	1	153	0.33

* $p < .01$.

** $p < .001$.

Table D-3. F-Tests of Significance for Math Composite

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
English I - IV 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2449	.2445	.00041	2	2,422	0.66
Sex & Ethnicity Interaction Test	2	3	.2445	.2404	.00418	2	2,424	6.70 *
Slope Differences for Sex	7	8	.2394	.2386	.00078	1	2,430	2.49
Intercept Differences for Sex	8	9	.2386	.1955	.04307	1	2,431	137.52 **
Slope Differences for Ethnicity	10	11	.1969	.1961	.00081	2	2,428	1.23
Intercept Differences for Ethnicity	11	12	.1961	.1955	.00059	2	2,430	0.89
English I - IV 1985 - 1986 Freshmen (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1996	.1970	.00268	2	1,989	3.33
Sex & Ethnicity Interaction Test	2	3	.1970	.1944	.00257	2	1,991	3.19
Slope Differences for Sex	7	8	.1829	.1822	.00067	1	1,997	1.65
Intercept Differences for Sex	8	9	.1822	.1498	.03244	1	1,998	79.25 **
Slope Differences for Ethnicity	10	11	.1579	.1557	.00225	2	1,995	2.66
Intercept Differences for Ethnicity	11	12	.1557	.1498	.00587	2	1,997	6.95 *
English I - IV 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2615	.2608	.00065	2	2,296	1.01
Sex & Ethnicity Interaction Test	2	3	.2608	.2601	.00070	2	2,298	1.09
Slope Differences for Sex	7	8	.2555	.2517	.00379	1	2,304	11.73 **
Slope Differences for Ethnicity	10	11	.2067	.2060	.00062	2	2,302	0.89
Intercept Differences for Ethnicity	11	12	.2060	.2019	.00415	2	2,304	6.03 *
English I - IV 1985 - 1986 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2321	.2309	.00122	2	1,942	1.54
Sex & Ethnicity Interaction Test	2	3	.2309	.2306	.00032	2	1,944	0.40
Slope Differences for Sex	7	8	.2159	.2123	.00365	1	1,950	9.07 *
Intercept Differences for Sex	8	9	.2123	.1565	.05578	1	1,951	138.16 **
Slope Differences for Ethnicity	10	11	.1711	.1709	.00019	2	1,948	0.23
Intercept Differences for Ethnicity	11	12	.1709	.1565	.01440	2	1,950	16.94 **
English I - IV 1984 - 1985 Junior (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2457	.2455	.00018	2	1,721	0.21
Sex & Ethnicity Interaction Test	2	3	.2455	.2453	.00017	2	1,723	0.19
Slope Differences for Sex	7	8	.2390	.2347	.00428	1	1,729	9.73 *
Intercept Differences for Sex	8	9	.2347	.1574	.07725	1	1,730	174.63 **
Slope Differences for Ethnicity	10	11	.1616	.1600	.00151	2	1,727	1.55
Intercept Differences for Ethnicity	11	12	.1600	.1575	.00259	2	1,729	2.67
English I - IV 1985 - 1986 Junior (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2161	.2160	.00015	1	1,258	0.24
Sex & Ethnicity Interaction Test	2	3	.2160	.2158	.00016	1	1,259	0.25
Slope Differences for Sex	7	8	.2146	.2102	.00441	1	1,262	7.09 *
Intercept Differences for Sex	8	9	.2102	.1282	.08204	1	1,263	131.20 **
Slope Differences for Ethnicity	10	11	.1290	.1290	.00001	1	1,262	0.01
Intercept Differences for Ethnicity	11	12	.1290	.1281	.00084	1	1,263	1.25

Table D-3. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
English I - IV 1984 - 1985 Senior (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2172	.2157	.00150	2	1,275	1.22
Sex & Ethnicity Interaction Test	2	3	.2157	.2149	.00079	2	1,277	0.65
Slope Differences for Sex	7	8	.2072	.2054	.00180	1	1,283	2.91
Intercept Differences for Sex	8	9	.2054	.1751	.03039	1	1,284	49.11 **
Slope Differences for Ethnicity	10	11	.1804	.1764	.00394	2	1,281	3.08
Intercept Differences for Ethnicity	11	12	.1764	.1751	.00138	2	1,283	1.08
General Math 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.0920	.0888	.00321	2	1,167	2.06
Sex & Ethnicity Interaction Test	2	3	.0888	.0852	.00365	2	1,169	2.34
Slope Differences for Sex	7	8	.0826	.0811	.00155	1	1,175	1.99
Intercept Differences for Sex	8	9	.0811	.0728	.00823	1	1,176	10.53 *
Slope Differences for Ethnicity	10	11	.0753	.0747	.00064	2	1,173	0.41
Intercept Differences for Ethnicity	11	12	.0747	.0728	.00185	2	1,175	1.18
General Math 1985 - 1986 Freshmen (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.0369	.0367	.00025	1	549	0.14
Sex & Ethnicity Interaction Test	2	3	.0367	.0334	.00327	1	550	1.87
Slope Differences for Sex	7	8	.0292	.0276	.00165	1	553	0.94
Intercept Differences for Sex	8	9	.0276	.0219	.00563	1	554	3.21
Slope Differences for Ethnicity	10	11	.0267	.0223	.00444	1	553	2.52
Intercept Differences for Ethnicity	11	12	.0223	.0219	.00035	1	554	0.20
General Math 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.0918	.0892	.00260	2	736	1.05
Sex & Ethnicity Interaction Test	2	3	.0892	.0843	.00492	2	738	2.00
Slope Differences for Sex	7	8	.0791	.0783	.00080	1	744	0.64
Intercept Differences for Sex	8	9	.0784	.0740	.00433	1	745	3.50
Slope Differences for Ethnicity	10	11	.0796	.0789	.00075	2	742	0.30
Intercept Differences for Ethnicity	11	12	.0789	.0740	.00486	2	744	1.96
General Math 1985 - 1986 Sophomore (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1202	.1144	.00587	1	305	2.04
Sex & Ethnicity Interaction Test	2	3	.1144	.1121	.00230	1	306	0.79
Slope Differences for Sex	7	8	.0901	.0887	.00146	1	309	0.49
Intercept Differences for Sex	8	9	.0887	.0546	.03405	1	310	11.58 **
Slope Differences for Ethnicity	10	11	.0755	.0736	.00198	1	309	0.66
Intercept Differences for Ethnicity	11	12	.0736	.0546	.01893	1	310	6.33
General Math 1984 - 1985 Junior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.0913	.0844	.00684	1	266	2.00
Sex & Ethnicity Interaction Test	2	3	.0844	.0844	.00006	1	267	0.02
Slope Differences for Sex	7	8	.0799	.0799	.00000	1	270	0.00
Intercept Differences for Sex	8	9	.0799	.0516	.02832	1	271	8.34 *
Slope Differences for Ethnicity	10	11	.0562	.0538	.00245	1	270	0.70
Intercept Differences for Ethnicity	11	12	.0538	.0516	.00216	1	271	0.62

Table D-3. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
General Math 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1271	.1267	.00045	1	222	0.11
Intercept Differences for Sex	8	9	.1267	.1037	.02297	1	223	5.86
General Math 1985 - 1986 Junior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1300	.1272	.00285	1	195	0.64
Intercept Differences for Ethnicity	11	12	.1272	.1227	.00449	1	196	1.01
General Math 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1064	.1020	.00439	1	230	1.13
Intercept Differences for Sex	8	9	.1020	.1015	.00055	1	231	0.14
General Math 1984 - 1985 Senior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1508	.1489	.00197	1	203	0.47
Intercept Differences for Ethnicity	11	12	.1489	.1240	.02488	1	204	5.96
Algebra 1984 - 1985 Freshmen (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2092	.2070	.00215	1	1,180	3.21
Sex & Ethnicity Interaction Test	2	3	.2070	.2070	.00002	1	1,181	0.02
Slope Differences for Sex	7	8	.2036	.2024	.00112	1	1,184	1.67
Intercept Differences for Sex	8	9	.2025	.1619	.04059	1	1,185	60.31 **
Slope Differences for Ethnicity	10	11	.1683	.1630	.00528	1	1,184	7.52 *
Intercept Differences for Ethnicity	11	12	.1630	.1619	.00112	1	1,185	1.58
Algebra 1985 - 1986 Freshmen (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2320	.2317	.00037	1	708	0.34
Sex & Ethnicity Interaction Test	2	3	.2317	.2302	.00152	1	709	1.40
Slope Differences for Sex	7	8	.2202	.2202	.00007	1	712	0.07
Intercept Differences for Sex	8	9	.2201	.1834	.03670	1	713	33.56 **
Slope Differences for Ethnicity	10	11	.1921	.1909	.00122	1	712	1.07
Intercept Differences for Ethnicity	11	12	.1909	.1834	.00746	1	713	6.58
Algebra 1984 - 1985 Sophomore (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1662	.1659	.00032	1	871	0.34
Sex & Ethnicity Interaction Test	2	3	.1659	.1611	.00479	1	872	5.01
Slope Differences for Sex	7	8	.1609	.1586	.00236	1	875	2.46
Intercept Differences for Sex	8	9	.1586	.1351	.02345	1	876	24.41 **
Slope Differences for Ethnicity	10	11	.1353	.1352	.00010	1	875	0.10
Intercept Differences for Ethnicity	11	12	.1352	.1351	.00005	1	876	0.05
Algebra 1985 - 1986 Sophomore (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1925	.1911	.00137	1	617	1.04
Sex & Ethnicity Interaction Test	2	3	.1911	.1893	.00178	1	618	1.36
Slope Differences for Sex	7	8	.1825	.1802	.00222	1	621	1.68
Intercept Differences for Sex	8	9	.1803	.1643	.01595	1	622	12.10 **
Slope Differences for Ethnicity	10	11	.1688	.1670	.00187	1	621	1.36
Intercept Differences for Ethnicity	11	12	.1670	.1643	.00269	1	622	2.01

Table D-3. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Algebra 1984 - 1985 Junior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2343	.2342	.00016	1	489	0.11
Sex & Ethnicity Interaction Test	2	3	.2342	.2339	.00022	1	490	0.14
Slope Differences for Sex	7	8	.2264	.2262	.00025	1	493	0.16
Intercept Differences for Sex	8	9	.2262	.1915	.03468	1	494	22.14 **
Slope Differences for Ethnicity	10	11	.1981	.1955	.00265	1	493	1.63
Intercept Differences for Ethnicity	11	12	.1955	.1915	.00399	1	494	2.45
Algebra 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1661	.1568	.00926	1	273	3.03
Intercept Differences for Sex	8	9	.1568	.1488	.00799	1	274	2.60
Algebra 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1689	.1541	.01487	1	273	4.88
Intercept Differences for Ethnicity	11	12	.1541	.1489	.00523	1	274	1.69
Algebra 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2602	.2431	.01711	1	265	6.13
Intercept Differences for Sex	8	9	.2431	.2046	.03857	1	266	13.56 **
Algebra 1984 - 1985 Senior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2311	.2210	.01015	1	265	3.50
Intercept Differences for Ethnicity	11	12	.2210	.2046	.01642	1	266	5.61
Geometry 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2664	.2663	.00004	1	511	0.03
Intercept Differences for Sex	8	9	.2664	.2585	.00784	1	512	5.47
Geometry 1985 - 1986 Freshmen (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2637	.2613	.00244	2	509	0.84
Intercept Differences for Ethnicity	11	12	.2613	.2585	.00276	2	511	0.95
Geometry 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2732	.2732	.00002	1	561	0.02
Intercept Differences for Sex	8	9	.2732	.2623	.01093	1	562	8.45 *
Geometry 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2673	.2626	.00474	2	559	1.81
Intercept Differences for Ethnicity	11	12	.2626	.2622	.00033	2	561	0.12
Geometry 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2591	.2578	.00135	1	410	0.75
Intercept Differences for Sex	8	9	.2578	.2400	.01778	1	411	9.85 *
Geometry 1985 - 1986 Sophomore (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2779	.2693	.00861	1	371	4.43
Intercept Differences for Ethnicity	11	12	.2693	.2476	.02172	1	372	11.06 *

Table D-3. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Geometry 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2529	.2517	.00114	1	305	0.46
Intercept Differences for Sex	8	9	.2517	.2340	.01768	1	306	7.23 *
Geometry 1984 - 1985 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2350	.2340	.00099	1	305	0.40
Intercept Differences for Ethnicity	11	12	.2341	.2340	.00001	1	306	0.00
Geometry 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.3095	.3076	.00182	1	123	0.32
Intercept Differences for Sex	8	9	.3076	.2790	.02867	1	124	5.14
Geometry 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.4013	.3327	.06852	1	123	14.08 **
Geometry 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.3047	.2775	.02713	1	107	4.17
Intercept Differences for Sex	8	9	.2775	.2775	.00006	1	108	0.01
Geometry 1984 - 1985 Senior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.3072	.2943	.01291	1	107	1.99
Intercept Differences for Ethnicity	11	12	.2943	.2775	.01685	1	108	2.58
Calculus 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1681	.1674	.00076	1	147	0.14
Intercept Differences for Sex	8	9	.1674	.1660	.00133	1	148	0.24
General Science 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2373	.2356	.00172	2	1,956	2.20
Sex & Ethnicity Interaction Test	2	3	.2356	.2267	.00894	2	1,958	11.45 **
Consistent Over or Under prediction of Subgroup	2	4	.2356	.2348	.00079	3	1,958	0.68
General Science 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1014	.1001	.00136	1	274	0.41
Intercept Differences for Sex	8	9	.1001	.0948	.00525	1	275	1.60
General Science 1985 - 1986 Freshmen (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1280	.0972	.03078	1	240	8.47 *
General Science 1984 - 1985 Sophomore (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2101	.2097	.00035	1	341	0.15
Sex & Ethnicity Interaction Test	2	3	.2097	.1981	.01158	1	342	5.01
Slope Differences for Sex	7	8	.1937	.1910	.00270	1	345	1.15
Intercept Differences for Sex	8	9	.1910	.1561	.03488	1	346	14.92 **
Slope Differences for Ethnicity	10	11	.1647	.1632	.00150	1	345	0.62
Intercept Differences for Ethnicity	11	12	.1632	.1561	.00717	1	346	2.96

Table D-3. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
General Science 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1235	.1207	.00277	1	183	0.58
Intercept Differences for Sex	8	9	.1207	.0920	.02871	1	184	6.01
General Science 1985 - 1986 Sophomore (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1688	.1687	.00004	1	158	0.01
Intercept Differences for Ethnicity	11	12	.1687	.1244	.04427	1	159	8.47 *
General Science 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1029	.0990	.00392	1	174	0.76
Intercept Differences for Sex	8	9	.0990	.0827	.01631	1	175	3.17
General Science 1984 - 1985 Junior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1479	.1457	.00216	1	149	0.38
Intercept Differences for Ethnicity	11	12	.1457	.0741	.07162	1	150	12.58 **
General Science 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2030	.2030	.00000	1	258	0.00
Intercept Differences for Sex	8	9	.2030	.1871	.01591	1	259	5.17
General Science 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1919	.1919	.00001	1	258	0.00
Intercept Differences for Ethnicity	11	12	.1919	.1871	.00475	1	259	1.52
General Science 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0664	.0660	.00045	1	182	0.09
Intercept Differences for Sex	8	9	.0660	.0518	.01414	1	183	2.77
Biology I - II 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2185	.2182	.00021	1	299	0.08
Intercept Differences for Sex	8	9	.2183	.2057	.01251	1	300	4.80
Biology I - II 1984 - 1985 Freshmen (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2151	.2075	.00754	1	299	2.87
Intercept Differences for Ethnicity	11	12	.2075	.2057	.00179	1	300	0.68
Biology I - II 1985 - 1986 Freshmen (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1815	.1815	.00005	1	1,119	0.07
Sex & Ethnicity Interaction Test	2	3	.1815	.1814	.00005	1	1,120	0.06
Slope Differences for Sex	7	8	.1805	.1803	.00022	1	1,123	0.30
Intercept Differences for Sex	8	9	.1803	.1524	.02790	1	1,124	38.26 **
Slope Differences for Ethnicity	10	11	.1533	.1524	.00093	1	1,123	1.23
Intercept Differences for Ethnicity	11	12	.1524	.1524	.00001	1	1,124	0.01

Table D-3. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Biology I - II 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2493	.2465	.00277	2	1,371	2.53
Sex & Ethnicity Interaction Test	2	3	.2465	.2416	.00497	2	1,373	4.53
Slope Differences for Sex	7	8	.2311	.2284	.00270	1	1,379	4.84
Intercept Differences for Sex	8	9	.2284	.2104	.01804	1	1,380	32.26 **
Slope Differences for Ethnicity	10	11	.2199	.2183	.00153	2	1,377	1.35
Intercept Differences for Ethnicity	11	12	.2183	.2104	.00794	2	1,379	7.01 **
Biology I - II 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2542	.2503	.00389	1	335	1.75
Intercept Differences for Sex	8	9	.2503	.2060	.04434	1	336	19.87 **
Biology I - II 1985 - 1986 Sophomore (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2077	.2064	.00134	2	333	0.28
Intercept Differences for Ethnicity	11	12	.2064	.2060	.00039	2	335	0.08
Biology I - II 1984 - 1985 Junior (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2540	.2517	.00222	1	397	1.18
Sex & Ethnicity Interaction Test	2	3	.2517	.2515	.00020	1	398	0.11
Slope Differences for Sex	7	8	.2477	.2396	.00817	1	401	4.36
Intercept Differences for Sex	8	9	.2396	.2068	.03272	1	402	17.30 **
Slope Differences for Ethnicity	10	11	.2131	.2105	.00255	1	401	1.30
Intercept Differences for Ethnicity	11	12	.2105	.2063	.00370	1	402	1.89
Biology I - II 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.3448	.3138	.03104	1	147	6.97 *
Biology I - II 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.3263	.3212	.00503	1	195	1.46
Intercept Differences for Sex	8	9	.3212	.2977	.02355	1	196	6.80 *
Biology I - II 1984 - 1985 Senior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.3653	.3585	.00683	1	176	1.90
Intercept Differences for Ethnicity	11	12	.3585	.2927	.06580	1	177	18.16 **
Chemistry I - II 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2640	.2543	.00976	1	128	1.70
Intercept Differences for Sex	8	9	.2543	.2369	.01738	1	129	3.01
Chemistry I - II 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0815	.0779	.00359	1	168	0.66
Intercept Differences for Sex	8	9	.0779	.0564	.02156	1	169	3.95
Chemistry I - II 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1575	.1539	.00352	1	430	1.80
Intercept Differences for Sex	8	9	.1539	.1103	.04364	1	431	22.23 **

Table D-3. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df1	df2	F
Chemistry I - II 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2643	.2616	.00279	1	426	1.61
Intercept Differences for Sex	8	9	.2616	.2135	.04810	1	427	27.81 **
Chemistry I - II 1984 - 1985 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2318	.2252	.00662	1	426	3.67
Intercept Differences for Ethnicity	11	12	.2252	.2135	.01177	1	427	6.49
Chemistry I - II 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2183	.2084	.00990	1	137	1.74
Intercept Differences for Sex	8	9	.2084	.1347	.07371	1	138	12.85 **
Chemistry I - II 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1506	.1504	.00013	1	137	0.02
Intercept Differences for Ethnicity	11	12	.1504	.1347	.01573	1	138	2.55
Chemistry I - II 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2964	.2871	.00929	1	156	2.06
Intercept Differences for Sex	8	9	.2871	.2843	.00276	1	157	0.61
Chemistry I - II 1984 - 1985 Senior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.3082	.2868	.02146	1	156	4.84
Intercept Differences for Ethnicity	11	12	.2868	.2843	.00246	1	157	0.54
Physics I - II 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1688	.1556	.01320	1	232	3.69
Intercept Differences for Sex	8	9	.1556	.1147	.04087	1	233	11.28 **
Physics I - II 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2281	.2254	.00272	1	166	0.58
Intercept Differences for Sex	8	9	.2254	.1885	.03691	1	167	7.96 *
Government & Civics 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	3	.2794	.2775	.00197	1	344	0.94
Intercept Differences for Sex	8	9	.2775	.2727	.00480	1	345	2.29
Government & Civics 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1715	.1571	.01436	1	155	2.69
Intercept Differences for Sex	8	9	.1571	.1194	.03771	1	156	6 98 *
Government & Civics 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1501	.1476	.00249	1	417	1.22
Intercept Differences for Sex	8	9	.1476	.1199	.02768	1	418	13.57 **
Government & Civics 1985 - 1986 Sophomore (Ethnicity = White & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1497	.1470	.00270	1	388	1.23
Intercept Differences for Ethnicity	11	12	.1470	.1259	.02116	1	389	9.65 *

Table D-3. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df1	df2	F
Government & Civics 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2550	.2530	.00204	1	456	1.25
Intercept Differences for Sex	8	9	.2530	.2332	.01980	1	457	12.11 **
Government & Civics 1984 - 1985 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2454	.2436	.00179	1	456	1.08
Intercept Differences for Ethnicity	11	12	.2436	.2332	.01039	1	457	6.28
Government & Civics 1985 - 1986 Junior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2818	.2807	.00114	1	707	1.12
Sex & Ethnicity Interaction Test	2	3	.2807	.2787	.00201	1	708	1.98
Slope Differences for Sex	7	8	.2774	.2762	.00127	1	711	1.25
Intercept Differences for Sex	8	9	.2762	.2462	.02995	1	712	29.46 **
Slope Differences for Ethnicity	10	11	.2475	.2473	.00026	1	711	0.24
Intercept Differences for Ethnicity	11	12	.2473	.2462	.00104	1	712	0.98
Government & Civics 1984 - 1985 Senior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2548	.2546	.00015	1	602	0.12
Sex & Ethnicity Interaction Test	2	3	.2546	.2545	.00015	1	603	0.12
Slope Differences for Sex	7	8	.2526	.2524	.00014	1	606	0.11
Intercept Differences for Sex	8	9	.2524	.2415	.01095	1	607	8.89 *
Slope Differences for Ethnicity	10	11	.2439	.2438	.00016	1	606	0.13
Intercept Differences for Ethnicity	11	12	.2438	.2415	.00230	1	607	1.85
History 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2523	.2513	.00093	2	1,319	0.82
Sex & Ethnicity Interaction Test	2	3	.2513	.2484	.00292	2	1,321	2.57
Slope Differences for Sex	7	8	.2428	.2428	.00003	1	1,327	0.05
Intercept Differences for Sex	8	9	.2428	.2117	.03106	1	1,328	54.47 **
Slope Differences for Ethnicity	10	11	.2172	.2120	.00520	2	1,325	4.40
Intercept Differences for Ethnicity	11	12	.2120	.2117	.00028	2	1,327	0.24
History 1985 - 1986 Freshmen (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2432	.2432	.00000	1	1,343	0.00
Sex & Ethnicity Interaction Test	2	3	.2432	.2431	.00010	1	1,344	0.17
Slope Differences for Sex	7	8	.2409	.2409	.00001	1	1,347	0.02
Intercept Differences for Sex	8	9	.2409	.2329	.00796	1	1,348	14.13 **
Slope Differences for Ethnicity	10	11	.2349	.2348	.00005	1	1,347	0.09
Intercept Differences for Ethnicity	11	12	.2348	.2329	.00187	1	1,348	3.30
History 1984 - 1985 Sophomore (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2477	.2470	.00069	1	1,430	1.31
Sex & Ethnicity Interaction Test	2	3	.2470	.2460	.00098	1	1,431	1.87
Slope Differences for Sex	7	8	.2404	.2404	.00001	1	1,434	0.02
Intercept Differences for Sex	8	9	.2404	.2248	.01562	1	1,435	29.52 **
Slope Differences for Ethnicity	10	11	.2303	.2302	.00004	1	1,434	0.07
Intercept Differences for Ethnicity	11	12	.2302	.2248	.00544	1	1,435	10.14 *

Table D-3. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df1	df2	F
History 1985 - 1986 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2155	.2150	.00053	2	1,465	0.49
Sex & Ethnicity Interaction Test	2	3	.2150	.2087	.00621	2	1,467	5.80 *
Slope Differences for Sex	7	8	.1578	.1863	.00149	1	1,473	2.71
Intercept Differences for Sex	8	9	.1863	.1495	.03682	1	1,474	66.69 **
Slope Differences for Ethnicity	10	11	.1724	.1641	.00832	2	1,471	7.39 **
History 1984 - 1985 Junior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2765	.2752	.00126	1	1,102	1.92
Sex & Ethnicity Interaction Test	2	3	.2752	.2750	.00025	1	1,103	0.38
Slope Differences for Sex	7	8	.2652	.2650	.00021	1	1,106	0.31
Intercept Differences for Sex	8	9	.2650	.2335	.03149	1	1,107	47.43 **
Slope Differences for Ethnicity	10	11	.2430	.2426	.00032	1	1,106	0.47
Intercept Differences for Ethnicity	11	12	.2426	.2335	.00912	1	1,107	13.34 **
History 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2308	.2124	.01845	1	428	10.26 *
History 1985 - 1986 Junior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1821	.1813	.00076	1	409	0.38
Intercept Differences for Ethnicity	11	12	.1813	.1706	.01070	1	410	5.36
History 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.3617	.3593	.00237	1	423	1.57
Intercept Differences for Sex	8	9	.3593	.3497	.00964	1	424	6.38
History 1984 - 1985 Senior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.3941	.3903	.00377	1	402	2.50
Intercept Differences for Ethnicity	11	12	.3903	.3598	.03051	1	403	20.17 **
Foreign Language 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2787	.2787	.00002	1	1,012	0.02
Intercept Differences for Sex	8	9	.2787	.2269	.05174	1	1,013	72.66 **
Foreign Language 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2424	.2398	.00263	2	1,010	1.75
Intercept Differences for Ethnicity	11	12	.2398	.2269	.01285	2	1,012	8.56 **
Foreign Language 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2150	.2134	.00156	1	797	1.58
Intercept Differences for Sex	8	9	.2134	.1708	.04268	1	798	43.30 **
Foreign Language 1985 - 1986 Freshmen (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1824	.1760	.00647	2	795	3.14
Intercept Differences for Ethnicity	11	12	.1760	.1708	.00518	2	797	2.51

Table D-3. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Foreign Language 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2458	.2456	.00017	1	892	0.20
Intercept Differences for Sex	8	9	.2456	.1664	.07917	1	893	93.71 **
Foreign Language 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1807	.1755	.00519	2	890	2.82
Intercept Differences for Ethnicity	11	12	.1755	.1664	.00912	2	892	4.93 *
Foreign Language 1985 - 1986 Sophomore (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1906	.1891	.00143	1	604	1.06
Sex & Ethnicity Interaction Test	2	3	.1891	.1888	.00038	1	605	0.28
Slope Differences for Sex	7	8	.1799	.1787	.00120	1	608	0.89
Intercept Differences for Sex	8	9	.1787	.1169	.06173	1	609	45.77 **
Slope Differences for Ethnicity	10	11	.1295	.1295	.00000	1	608	0.00
Intercept Differences for Ethnicity	11	12	.1295	.1169	.01253	1	609	8.77 *
Foreign Language 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2373	.2341	.00316	1	480	1.99
Intercept Differences for Sex	8	9	.2341	.1518	.08231	1	481	51.69 **
Foreign Language 1984 - 1985 Junior (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1693	.1646	.00470	2	478	1.35
Intercept Differences for Ethnicity	11	12	.1646	.1518	.01281	2	480	3.68
Foreign Language 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1964	.1851	.01128	1	247	3.47
Intercept Differences for Sex	8	9	.1851	.1373	.04779	1	248	14.54 **
Foreign Language 1985 - 1986 Junior (Ethnicity = White & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1010	.0934	.00765	1	205	1.74
Intercept Differences for Ethnicity	11	12	.0934	.0915	.00186	1	206	0.42
Foreign Language 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2061	.2046	.00149	1	224	0.42
Intercept Differences for Sex	8	9	.2046	.1827	.02190	1	225	6.19
Foreign Language 1984 - 1985 Senior (Ethnicity = White & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1364	.1364	.00007	1	185	0.01
Intercept Differences for Ethnicity	11	12	.1364	.1300	.00639	1	186	1.38
Secretary & Office Education 1985 - 1986 Junior (Ethnicity = White & Non-white) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1417	.1404	.00128	1	215	0.32
Intercept Differences for Ethnicity	11	12	.1404	.1402	.00020	1	216	0.05
Secretary & Office Education 1984 - 1985 Senior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1163	.1062	[illegible]	1	220	2.51
Intercept Differences for Ethnicity	11	12	.1062	.1015	.00471	1	221	1.16

Table D-3. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Typing & Word Processing 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2169	.2165	.00044	1	507	0.28
Intercept Differences for Sex	8	9	.2165	.2036	.01281	1	508	8.30 *
Typing & Word Processing 1984-1985 Freshmen (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2073	.2056	.00168	2	505	0.54
Intercept Differences for Ethnicity	11	12	.2056	.2037	.00197	2	507	0.63
Typing & Word Processing 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1802	.1802	.00003	1	492	0.02
Intercept Differences for Sex	8	9	.1802	.1508	.02939	1	493	17.68 **
Typing & Word Processing 1985-1986 Freshmen (Ethnicity = White & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1444	.1434	.00102	1	445	0.53
Intercept Differences for Ethnicity	11	12	.1434	.1424	.00106	1	446	0.55
Typing & Word Processing 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2089	.2083	.00067	1	631	0.53
Intercept Differences for Sex	8	9	.2033	.1662	.04203	1	632	33.55 **
Typing & Word Processing 1984-1985 Sophomore (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1672	.1664	.00086	2	629	0.32
Intercept Differences for Ethnicity	11	12	.1664	.1663	.00012	2	631	0.04
Typing & Word Processing 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1649	.1599	.00502	1	405	2.43
Intercept Differences for Sex	8	9	.1599	.1506	.00934	1	406	4.51
Typing & Word Processing 1985-1986 Sophomore (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1578	.1551	.00271	1	374	1.20
Intercept Differences for Ethnicity	11	12	.1551	.1514	.00363	1	375	1.61
Typing & Word Processing 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2101	.2084	.00165	1	391	0.82
Intercept Differences for Sex	8	9	.2085	.1456	.06283	1	392	31.12 **
Typing & Word Processing 1984-1985 Junior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1423	.1423	.00002	1	359	0.01
Intercept Differences for Ethnicity	11	12	.1423	.1408	.00153	1	360	0.64
Typing & Word Processing 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1566	.1493	.00729	1	221	1.91
Intercept Differences for Sex	8	9	.1493	.1128	.03644	1	222	9.51 *
Typing & Word Processing 1985-1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1380	.1341	.00390	1	221	1.00
Intercept Differences for Ethnicity	11	12	.1341	.1129	.02126	1	222	5.45

Table D-3. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df1	df2	F
Typing & Word Processing 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2095	.2074	.00218	1	216	0.60
Intercept Differences for Sex	8	9	.2074	.1740	.03341	1	217	9.15 *
Accounting/Bookkeeping 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2105	.2104	.00016	1	311	0.06
Intercept Differences for Sex	8	9	.2104	.1614	.04893	1	312	19.33 **
Accounting/Bookkeeping 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2927	.2890	.00371	1	239	1.25
Intercept Differences for Sex	8	9	.2890	.1958	.09319	1	240	31.45 **
Accounting/Bookkeeping 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1552	.1525	.00267	1	185	0.58
Intercept Differences for Sex	8	9	.1525	.1145	.03805	1	186	8.35 *
Accounting/Bookkeeping 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2161	.2109	.00518	1	247	1.63
Intercept Differences for Sex	8	9	.2109	.1735	.03741	1	248	11.76 **
Home Economics 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2172	.2165	.00071	1	547	0.50
Intercept Differences for Sex	8	9	.2165	.1697	.04680	1	548	32.74 **
Home Economics 1984-1985 Freshmen (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2321	.2318	.00037	1	519	0.25
Intercept Differences for Ethnicity	11	12	.2318	.1581	.07365	1	520	49.85**
Home Economics 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1543	.1529	.00139	1	312	0.51
Intercept Differences for Sex	8	9	.1529	.0932	.05966	1	313	22.04 **
Home Economics 1985-1986 Freshmen (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1044	.1036	.00077	1	312	0.27
Intercept Differences for Ethnicity	11	12	.1037	.0932	.01043	1	313	3.64
Home Economics 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2007	.2000	.00065	1	321	0.26
Intercept Differences for Sex	8	9	.2000	.1475	.05248	1	322	21.12 **
Home Economics 1984-1985 Sophomore (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1905	.1876	.00292	1	321	1.16
Intercept Differences for Ethnicity	11	12	.1876	.1475	.04003	1	322	15.96**
Home Economics 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1668	.1667	.00007	1	394	0.04
Intercept Differences for Sex	8	9	.1667	.1102	.05655	1	395	26.81 **

Table D-3. (Concluded)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df1	df2	F
Home Economics 1985-1986 Sophomore (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1138	.1137	.00010	1	394	0.05
Intercept Differences for Ethnicity	11	12	.1137	.1102	.00348	1	395	1.55
Home Economics 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1832	.1831	.00007	1	279	0.02
Intercept Differences for Sex	8	9	.1831	.1550	.02806	1	280	9.62 *
Home Economics 1984-1985 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1604	.1604	.00000	1	279	0.00
Intercept Differences for Ethnicity	11	12	.1604	.1550	.00538	1	280	1.79
Home Economics 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2243	.2236	.00070	1	358	0.32
Intercept Differences for Sex	8	9	.2236	.1102	.11338	1	359	52.43 **
Home Economics 1985-1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1140	.1140	.00003	1	358	0.01
Intercept Differences for Ethnicity	11	12	.1140	.1102	.00379	1	359	1.54
Home Economics 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1970	.1969	.00011	1	318	0.04
Intercept Differences for Sex	8	9	.1969	.1539	.04293	1	319	[illegible]7.05 **
Home Economics 1984-1985 Senior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1622	.1542	.00799	1	318	3.03
Intercept Differences for Ethnicity	11	12	.1542	.1539	.00026	1	319	0.10
Computer Programming 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2625	.2615	.00104	1	227	0.32
Intercept Differences for Sex	8	9	.2615	.1924	.06910	1	228	21.33 **
Computer Programming 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2957	.2921	.00365	1	240	1.24
Intercept Differences for Sex	8	9	.2921	.2725	.01960	1	241	6.67
Computer Programming 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.3553	.3541	.00127	1	157	0.30
Intercept Differences for Sex	8	9	.3541	.2490	.10517	1	158	25.73 **
Computer Programming 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2208	.2198	.00092	1	152	0.18
Intercept Differences for Sex	8	9	.2198	.2195	.00035	1	153	0.07

* $p < .01$.

** $p < .001$.

Table D-4. F-Tests of Significance for Mechanical & Crafts Composite

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
English I - IV 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2005	.1998	.00072	2	2,422	1.09
Sex & Ethnicity Interaction Test	2	3	.1998	.1957	.00406	2	2,424	6.15 *
Slope Differences for Sex	7	8	.1950	.1897	.00528	1	2,430	15.92 **
Slope Differences for Ethnicity	10	11	.1001	.1000	.00006	2	2,428	0.07
Intercept Differences for Ethnicity	11	12	.1000	.0988	.00121	2	2,430	1.64
English I - IV 1985 - 1986 Freshmen (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1495	.1471	.00238	2	1,990	2.78
Sex & Ethnicity Interaction Test	2	3	.1499	.1470	.00292	2	1,991	3.41
Slope Differences for Sex	7	8	.1366	.1337	.00293	1	1,997	6.79 *
Intercept Differences for Sex	8	9	.1337	.0649	.06873	1	1,998	158.52 **
Slope Differences for Ethnicity	10	11	.0763	.0737	.00266	2	1,995	2.87
Intercept Differences for Ethnicity	11	12	.0737	.0649	.00872	2	1,997	9.40 **
English I - IV 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2058	.2051	.00072	2	2,296	1.04
Sex & Ethnicity Interaction Test	2	3	.2051	.2043	.00081	2	2,298	1.16
Slope Differences for Sex	7	8	.2020	.1873	.01468	1	2,304	42.38 **
Slope Differences for Ethnicity	10	11	.0925	.0915	.00101	2	2,302	1.28
Intercept Differences for Ethnicity	11	12	.0915	.0831	.00841	2	2,304	10.57 **
English I - IV 1985 - 1986 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1986	.1985	.00006	2	1,942	0.07
Sex & Ethnicity Interaction Test	2	3	.1985	.1984	.00015	2	1,944	0.19
Slope Differences for Sex	7	8	.1901	.1779	.01222	1	1,950	29.42 **
Slope Differences for Ethnicity	10	11	.0888	.0883	.00055	2	1,948	0.59
Intercept Differences for Ethnicity	11	12	.0883	.0664	.02182	2	1,950	23.33 **
English I - IV 1984 - 1985 Junior (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1796	.1795	.00012	2	1,721	0.12
Sex & Ethnicity Interaction Test	2	3	.1795	.1791	.00039	2	1,723	0.41
Slope Differences for Sex	7	8	.1761	.1632	.01293	1	1,729	27.13 **
Slope Differences for Ethnicity	10	11	.0436	.0435	.00009	2	1,727	0.09
Intercept Differences for Ethnicity	11	12	.0435	.0329	.01065	2	1,729	9.63 **
English I - IV 1985-86 Junior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1660	.1660	.00000	1	1,258	0.00
Sex & Ethnicity Interaction Test	2	3	.1660	.1660	.00000	1	1,259	0.00
Slope Differences for Sex	7	8	.1655	.1514	.01406	1	1,262	21.27 **
Slope Differences for Ethnicity	10	11	.0300	.0290	.00091	1	1,262	1.18
Intercept Differences for Ethnicity	11	12	.0290	.0209	.00813	1	1,263	10.58 *

Table D-4. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df1	df2	F
English I - IV 1984 - 1985 Senior (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1543	.1540	.00039	2	1,275	0.29
Sex & Ethnicity Interaction Test	2	3	.1540	.1521	.00190	2	1,277	1.43
Slope Differences for Sex	7	8	.1466	.1375	.00917	1	1,283	13.78 **
Slope Differences for Ethnicity	10	11	.0715	.0686	.00280	2	1,281	1.93
Intercept Differences for Ethnicity	11	12	.0687	.0643	.00436	2	1,283	3.01
General Math 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.0612	.0606	.00058	2	1,167	0.36
Sex & Ethnicity Interaction Test	2	3	.0606	.0588	.00180	2	1,169	1.12
Slope Differences for Sex	7	8	.0545	.0543	.00021	1	1,175	0.26
Intercept Differences for Sex	8	9	.0543	.0337	.02057	1	1,176	25.57 **
Slope Differences for Ethnicity	10	11	.0379	.0359	.00197	2	1,173	1.20
Intercept Differences for Ethnicity	11	12	.0359	.0337	.00220	2	1,175	1.34
General Math 1985 - 1986 Freshmen (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.0307	.0307	.00002	1	549	0.01
Sex & Ethnicity Interaction Test	2	3	.0307	.0284	.00228	1	550	1.30
Slope Differences for Sex	7	8	.0234	.0233	.00006	1	553	0.04
Intercept Differences for Sex	8	9	.0233	.0116	.01166	1	554	6.62
Slope Differences for Ethnicity	10	11	.0163	.0125	.00381	1	553	2.14
Intercept Differences for Ethnicity	11	12	.0125	.0116	.00087	1	554	0.49
General Math 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.0708	.0647	.00611	2	736	2.42
Sex & Ethnicity Interaction Test	2	3	.0647	.0601	.00459	2	738	1.81
Slope Differences for Sex	7	8	.0473	.0452	.00205	1	744	1.60
Intercept Differences for Sex	8	9	.0452	.0351	.01013	1	745	7.90 *
Slope Differences for Ethnicity	10	11	.0457	.0443	.00148	2	742	0.58
Intercept Differences for Ethnicity	11	12	.0443	.0351	.00917	2	744	3.57
General Math 1985 - 1986 Sophomore (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1112	.1087	.00258	1	305	0.88
Sex & Ethnicity Interaction Test	2	3	.1087	.1081	.00060	1	306	0.21
Slope Differences for Sex	7	8	.0922	.0922	.00003	1	309	0.01
Intercept Differences for Sex	8	9	.0922	.0330	.05924	1	310	20.23 **
Slope Differences for Ethnicity	10	11	.0554	.0481	.00749	1	309	2.38
Intercept Differences for Ethnicity	11	12	.0481	.0330	.01510	1	310	4.92
General Math 1984 - 1985 Junior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.0708	.0689	.00185	1	266	0.53
Sex & Ethnicity Interaction Test	2	3	.0689	.0671	.00183	1	267	0.53
Slope Differences for Sex	7	8	.0619	.0605	.00138	1	270	0.40
Intercept Differences for Sex	8	9	.0605	.0169	.04358	1	271	12.57 **
Slope Differences for Ethnicity	10	11	.0268	.0204	.00647	1	270	1.79
Intercept Differences for Ethnicity	11	12	.0204	.0169	.00345	1	271	0.95

Table D-4. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df1	df2	F
General Math 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1102	.1043	.00588	1	222	1.47
Intercept Differences for Sex	8	9	.1043	.0430	.06138	1	223	15.28 **
General Math 1985 - 1986 Junior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0623	.0599	.00241	1	195	0.50
Intercept Differences for Ethnicity	11	12	.0599	.0554	.00447	1	196	0.93
General Math 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1048	.0887	.01606	1	230	4.13
Intercept Differences for Sex	8	9	.0887	.0783	.01037	1	231	2.63
General Math 1984 - 1985 Senior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1109	.1091	.00188	1	203	0.43
Intercept Differences for Ethnicity	11	12	.1090	.0941	.01490	1	204	3.41
Algebra 1984 - 1985 Freshmen (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1351	.1312	.00385	1	1,180	5.25
Sex & Ethnicity Interaction Test	2	3	.1312	.1307	.00054	1	1,181	0.74
Slope Differences for Sex	7	8	.1295	.1224	.00713	1	1,184	9.70 *
Intercept Differences for Sex	8	9	.1224	.0488	.07352	1	1,185	99.27 **
Slope Differences for Ethnicity	10	11	.0524	.0488	.00351	1	1,184	4.38
Intercept Differences for Ethnicity	11	12	.0488	.0488	.00000	1	1,185	0.00
Algebra 1985 - 1986 Freshmen (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1597	.1595	.00016	1	708	0.13
Sex & Ethnicity Interaction Test	2	3	.1595	.1581	.00140	1	709	1.18
Slope Differences for Sex	7	8	.1509	.1446	.00623	1	712	5.23
Intercept Differences for Sex	8	9	.1446	.0618	.08285	1	713	69.06 **
Slope Differences for Ethnicity	10	11	.0765	.0750	.00152	1	712	1.17
Intercept Differences for Ethnicity	11	12	.0750	.0618	.01317	1	713	10.15 *
Algebra 1984 - 1985 Sophomore (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.0880	.0876	.00043	1	871	0.43
Sex & Ethnicity Interaction Test	2	3	.0876	.0813	.00630	1	872	6.02
Slope Differences for Sex	7	8	.0808	.0725	.00823	1	875	7.83 *
Intercept Differences for Sex	8	9	.0725	.0265	.04602	1	876	43.47 **
Slope Differences for Ethnicity	10	11	.0279	.0278	.00012	1	875	0.11
Intercept Differences for Ethnicity	11	12	.0273	.0265	.00126	1	876	1.14
Algebra 1985 - 1986 Sophomore (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1150	.1149	.00008	1	617	0.05
Sex & Ethnicity Interaction Test	2	3	.1149	.1141	.00079	1	618	0.55
Slope Differences for Sex	7	8	.1065	.1001	.00642	1	621	4.46
Intercept Differences for Sex	8	9	.1001	.0585	.04159	1	622	28.74 **
Slope Differences for Ethnicity	10	11	.0673	.0668	.00044	1	621	0.30
Intercept Differences for Ethnicity	11	12	.0668	.0585	.00829	1	622	5.53

Table D.4. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Algebra 1984 - 1985 Junior (Ethnicity = White & Black)								
3-Way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1092	.1027	.00650	1	490	3.57
Sex & Ethnicity Interaction Test	2	3	.1124	.1122	.00022	1	490	0.12
Slope Differences for Sex	7	8	.1006	.0931	.00750	1	493	4.11
Intercept Differences for Sex	8	9	.0931	.0310	.06211	1	494	33.83 **
Slope Differences for Ethnicity	10	11	.0415	.0324	.00905	1	493	4.65
Intercept Differences for Ethnicity	11	12	.0325	.0310	.00148	1	494	0.76
Algebra 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0831	.0591	.02410	1	273	7.18 *
Algebra 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0592	.0591	.00009	1	273	0.03
Intercept Differences for Ethnicity	11	12	.0591	.0398	.01928	1	274	5.61
Algebra 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1089	.0848	.02411	1	265	7.17 *
Algebra 1984 - 1985 Senior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0364	.0206	.01579	1	265	4.34
Intercept Differences for Ethnicity	11	12	.0206	.0200	.00065	1	266	0.18
Geometry 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1735	.1710	.00244	1	511	1.51
Intercept Differences for Sex	8	9	.1710	.1376	.03341	1	512	20.63 **
Geometry 1985 - 1986 Freshmen (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1476	.1461	.00148	2	509	0.44
Intercept Differences for Ethnicity	11	12	.1461	.1376	.00850	2	511	2.54
Geometry 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1909	.1878	.00312	1	561	2.16
Intercept Differences for Sex	8	9	.1878	.1321	.05563	1	562	38.49 **
Geometry 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1444	.1351	.00938	2	559	3.07
Intercept Differences for Ethnicity	11	12	.1351	.1321	.00294	2	561	0.95
Geometry 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2300	.2281	.00188	1	410	1.00
Intercept Differences for Sex	8	9	.2281	.1490	.07918	1	411	42.16 **
Geometry 1985 - 1986 Sophomore (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1871	.1785	.00866	[illegible]	371	3.95
Intercept Differences for Ethnicity	11	12	.1785	.1514	.02708	1	372	12.26 **
Geometry 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2017	.1828	.01893	1	305	7.23 *

Table D-4. (Continued)

st Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df1	df2	F
Geometry 1984 - 1985 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
e Differences for Ethnicity	10	11	.1145	.1103	.00423	1	305	1.46
rcept Differences for Ethnicity	11	12	.1103	.1103	.00000	1	306	0.00
Geometry 1985 - 1986 Junior (Ethnicity not tested)								
Differences for Sex	7	8	.2455	.2219	.02363	1	123	3.6[illegible]
rcept Differences for Sex	8	9	.2219	.1533	.06859	1	124	10.9[illegible] *
Geometry 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
e Differences for Ethnicity	10	11	.2440	.2312	.01275	1	123	2.08
rcept Differences for Ethnicity	11	12	.2312	.1533	.07792	1	124	12.57 **
Geometry 1984 - 1985 Senior (Ethnicity not tested)								
e Differences for Sex	7	8	.2058	.2056	.00013	1	107	0.02
rcept Differences for Sex	8	9	.2057	.1959	.00971	1	108	1.32
Geometry 1984 - 1985 Senior (Ethnicity = White & Nonwhite) (Sex not tested)								
e Differences for Ethnicity	10	11	.2123	.2123	.00006	1	107	0.01
rcept Differences for Ethnicity	11	12	.2123	.1959	.01637	1	108	2.24
General Science 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic)								
y Interaction Test (ASVAB*sex*ethnicity)	1	2	.1918	.1897	.00213	2	1,956	2.58
& Ethnicity Interaction Test	2	3	.1897	.1829	.00680	2	1,958	8.22 **
istent Over or Under prediction of Subgroup	2	4	.1897	.1872	.00246	3	1,958	1.98
General Science 1985 - 1986 Freshmen (Ethnicity not tested)								
e Differences for Sex	7	8	.1249	.1209	.00406	1	274	1.27
rcept Differences for Sex	8	9	.1209	.0953	.02554	1	275	7.99 *
General Science 1985 - 1986 Freshmen (Ethnicity = White & Black) (Sex not tested)								
e Differences for Ethnicity	10	11	.1099	.0960	.01389	1	240	3.75
cept Differences for Ethnicity	11	12	.0960	.0953	.00069	1	241	0.18
General Science 1984 - 1985 Sophomore (Ethnicity = White & Nonwhite)								
y Interaction Test (ASVAB*sex*ethnicity)	1	2	.2004	.2003	.00002	1	341	0.01
& Ethnicity Interaction Test	2	3	.2003	.1859	.01447	1	342	6.19
e Differences for Sex	7	8	.1673	.1641	.00321	1	345	1.33
rcept Differences for Sex	8	9	.1641	.0850	.07918	1	346	32.78 **
e Differences for Ethnicity	10	11	.1023	.0983	.00406	1	345	1.56
rcept Differences for Ethnicity	11	12	.0983	.0849	.01335	1	346	5.12
General Science 1985 - 1986 Sophomore (Ethnicity not tested)								
e Differences for Sex	7	8	.1422	.1422	.00000	1	183	0.00
rcept Differences for Sex	8	9	.1422	.0855	.05678	1	184	12.18 **

Table D-4. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df1	df2	F
General Science 1985 - 1986 Sophomore (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1417	.1403	.00130	1	158	0.24
Intercept Differences for Ethnicity	11	12	.1404	.1001	.04026	1	159	7.45 *
General Science 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1527	.1469	.00582	1	258	1.77
Intercept Differences for Sex	8	9	.1469	.1046	.04233	1	259	12.85 **
General Science 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1129	.1127	.00019	1	258	0.05
Intercept Differences for Ethnicity	11	12	.1128	.1046	.00818	1	259	2.39
General Science 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1035	.1022	.00131	1	182	0.27
Intercept Differences for Sex	8	9	.1022	.0580	.04415	1	183	9.00 *
Biology I - II 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2174	.2163	.00105	1	299	0.40
Intercept Differences for Sex	8	9	.2163	.1554	.06097	1	300	23.34 **
Biology I - II 1984 - 1985 Freshmen (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1618	.1575	.00431	1	299	1.54
Intercept Differences for Ethnicity	11	12	.1575	.1554	.00216	1	300	0.77
Biology I - II 1985 - 1986 Freshmen (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1294	.1286	.00087	1	1,120	1.12
Sex & Ethnicity Interaction Test	2	3	.1302	.1299	.00031	1	1,120	0.40
Slope Differences for Sex	7	8	.1293	.1278	.00154	1	1,123	1.98
Intercept Differences for Sex	8	9	.1278	.0677	.06013	1	1,124	77.49 **
Slope Differences for Ethnicity	10	11	.0692	.0687	.00049	1	1,123	0.59
Intercept Differences for Ethnicity	11	12	.0687	.0677	.00105	1	1,124	1.27
Biology I - II 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1676	.1654	.00224	2	1,371	1.85
Sex & Ethnicity Interaction Test	2	3	.1654	.1627	.00267	2	1,373	2.20
Slope Differences for Sex	7	8	.1466	.1368	.00982	1	1,379	15.88 **
Slope Differences for Ethnicity	10	11	.0956	.0936	.00201	2	1,377	1.53
Intercept Differences for Ethnicity	11	12	.0936	.0906	.00297	2	1,379	2.26
Biology I - II 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1628	.1461	.01664	1	335	6.66
Intercept Differences for Sex	8	9	.1461	.0451	.10105	1	336	39.76 **
Biology I - II 1985 - 1986 Sophomore (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0507	.0477	.00300	2	333	0.53
Intercept Differences for Ethnicity	11	12	.0477	.0451	.00259	2	335	0.46

Table D-4. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df1	df2	F
Biology I - II 1984 - 1985 Junior (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1870	.1870	.00005	1	397	0.02
Sex & Ethnicity Interaction Test	2	3	.1870	.1869	.00004	1	398	0.02
Slope Differences for Sex	7	8	.1820	.1820	.00002	1	401	0.01
Intercept Differences for Sex	8	9	.1820	.1026	.07938	1	402	39.01 **
Slope Differences for Ethnicity	10	11	.1044	.1039	.00056	1	401	0.25
Intercept Differences for Ethnicity	11	12	.1039	.1026	.00127	1	402	0.57
Biology I - II 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2267	.2249	.00182	1	147	0.35
Intercept Differences for Sex	8	9	.2249	.0979	.12701	1	148	24.25 **
Biology I - II 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.3359	.3297	.00614	1	195	1.80
Intercept Differences for Sex	8	9	.3297	.2366	.09312	1	196	27.23 **
Biology I - II 1984 - 1985 Senior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.3027	.3026	.00015	1	176	0.04
Intercept Differences for Ethnicity	11	12	.3026	.2393	.06329	1	177	16.06 **
Chemistry I - II 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1089	.1065	.00233	1	128	0.34
Intercept Differences for Sex	8	9	.1065	.0467	.05983	1	129	8.64 *
Chemistry I - II 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1370	.1244	.01255	1	168	2.44
Intercept Differences for Sex	8	9	.1244	.0598	.06467	1	169	12.48 **
Chemistry I - II 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1045	.0922	.01227	1	430	5.89
Intercept Differences for Sex	8	9	.0922	.0196	.07263	1	431	34.49 **
Chemistry I - II 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1443	.1417	.00257	1	426	1.28
Intercept Differences for Sex	8	9	.1417	.0511	.09064	1	427	45.09 **
Chemistry I - II 1984 - 1985 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0536	.0524	.00122	1	426	0.55
Intercept Differences for Ethnicity	11	12	.0524	.0511	.00132	1	427	0.60
Chemistry I - II 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1526	.1376	.01506	1	137	2.44
Intercept Differences for Sex	8	9	.1376	.0345	.10308	1	138	16.49 **
Chemistry I - II 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0407	.0394	.00128	1	137	0.18
Intercept Differences for Ethnicity	11	12	.0394	.0345	.00493	1	138	0.71

Table D-4. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Chemistry I - II 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1505	.1497	.00075	1	156	0.14
Intercept Differences for Sex	8	9	.1497	.1359	.01381	1	157	2.55
Chemistry I - II 1984 - 1985 Senior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1540	.1384	.01553	1	156	2.86
Intercept Differences for Ethnicity	11	12	.1384	.1359	.00251	1	157	0.46
Physics I - II 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1261	.1195	.00660	1	166	1.25
Intercept Differences for Sex	8	9	.1195	.0342	.08526	1	167	16.17 **
Government & Civics 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1779	.1748	.00317	1	344	1.33
Intercept Differences for Sex	8	9	.1748	.1327	.04208	1	345	17.59 **
Government & Civics 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1104	.1063	.00401	1	155	0.70
Intercept Differences for Sex	8	9	.1063	.0354	[illegible]	1	156	12.39 **
Government & Civics 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0812	.0721	.00908	1	417	4.12
Intercept Differences for Sex	8	9	.0721	.0252	.04695	1	418	21.15 **
Government & Civics 1985 - 1986 Sophomore (Ethnicity = White & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0614	.0612	.00028	1	388	0.12
Intercept Differences for Ethnicity	11	12	.0611	.0252	.03598	1	389	14.91 **
Government & Civics 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1803	.1722	.00805	1	456	4.48
Intercept Differences for Sex	8	9	.1722	.0952	.07706	1	457	42.54 **
Government & Civics 1984 - 1985 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1114	.1098	.00167	1	456	0.86
Intercept Differences for Ethnicity	11	12	.1098	.0952	.01459	1	457	7.49 *
Government & Civics 1985 - 1986 Junior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1753	.1752	.00017	1	707	0.15
Sex & Ethnicity Interaction Test	2	3	.1752	.1746	.00053	1	708	0.45
Slope Differences for Sex	7	8	.1708	.1508	.02002	1	711	17.17 **
Slope Differences for Ethnicity	10	11	.0745	.0715	.00299	1	711	2.30
Intercept Differences for Ethnicity	11	12	.0715	.0714	.00011	1	712	0.08
Government & Civics 1984 - 1985 Senior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1709	.1707	.00016	1	602	0.12
Sex & Ethnicity Interaction Test	2	3	.1707	[illegible]	.00199	1	603	1.45
Slope Differences for Sex	7	8	.1632	.1631	.00007	1	606	0.05
Intercept Differences for Sex	8	9	.1631	.1114	.05170	1	607	37.50 **
Slope Differences for Ethnicity	10	11	.1133	.1132	.00006	1	606	0.04
Intercept Differences for Ethnicity	11	12	.1132	.1114	.00176	1	607	1.20

Table D-4. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
History 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2156	.2144	.00123	2	1,319	1.03
Sex & Ethnicity Interaction Test	2	3	.2144	.2114	.00294	2	1,321	2.47
Slope Differences for Sex	7	8	.2098	.2074	.00234	1	1,327	3.94
Intercept Differences for Sex	8	9	.2074	.1300	.07740	1	1,328	129.68 **
Slope Differences for Ethnicity	10	11	.1352	.1315	.00363	2	1,325	2.78
Intercept Differences for Ethnicity	11	12	.1316	.1300	.00152	2	1,327	1.16
History 1985 - 1986 Freshmen (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1649	.1628	.00214	1	1,344	3.45
Sex & Ethnicity Interaction Test	2	3	.1654	.1653	.00011	1	1,344	0.18
Slope Differences for Sex	7	8	.1639	.1603	.00363	1	1,347	5.86
Intercept Differences for Sex	8	9	.1602	.1187	.04155	1	1,348	66.69 **
Slope Differences for Ethnicity	10	11	.1218	.1217	.00005	1	1,347	0.08
Intercept Differences for Ethnicity	11	12	.1217	.1187	.00301	1	1,348	4.62
History 1984 - 1985 Sophomore (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1760	.1731	.00281	1	1,431	4.87
Sex & Ethnicity Interaction Test	2	3	.1758	.1748	.00096	1	1,431	1.67
Slope Differences for Sex	7	8	.1714	.1688	.00255	1	1,434	4.42
Intercept Differences for Sex	8	9	.1689	.1077	.06117	1	1,435	105.61 **
Slope Differences for Ethnicity	10	11	.1160	.1157	.00029	1	1,434	0.48
Intercept Differences for Ethnicity	11	12	.1157	.1077	.00798	1	1,435	12.96 **
History 1985 - 1986 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1729	.1665	.00636	2	1,466	5.64 *
Sex & Ethnicity Interaction Test	2	3	.1728	.168[illegible]	.00442	2	1,467	3.92
Slope Differences for Sex	7	8	.1559	.1484	.00747	1	1,473	13.04 **
Slope Differences for Ethnicity	10	11	.0942	.0917	.00251	2	1,471	2.04
Intercept Differences for Ethnicity	11	12	.0917	.0701	.02154	2	1,473	17.46 **
History 1984 - 1985 Junior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2105	.2098	.00071	1	1,102	0.99
Sex & Ethnicity Interaction Test	2	3	.2098	.2093	.00055	1	1,103	0.77
Slope Differences for Sex	7	8	.2043	.1949	.00940	1	1,106	13.07 **
Slope Differences for Ethnicity	10	11	.1208	.1208	.00001	1	1,106	0.02
Intercept Differences for Ethnicity	11	12	.1208	.1041	.01662	1	1,107	20.92 **
History 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1623	.1479	.01440	1	428	7.36 *
History 1985 - 1986 Junior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0713	.0696	.00169	1	409	0.75
Intercept Differences for Ethnicity	11	12	.0696	.0552	.01441	1	410	6.35

Table D-4. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
History 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2692	.2602	.00900	1	423	5.21
Intercept Differences for Sex	8	9	.2602	.1990	.06124	1	424	35.09 **
History 1984 - 1985 Senior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2479	.2450	.00285	1	402	1.53
Intercept Differences for Ethnicity	11	12	.2450	.2094	.03564	1	403	19.02 **
Foreign Language 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1657	.1634	.00235	1	1,012	2.85
Intercept Differences for Sex	8	9	.1634	.0737	.08968	1	1,013	108.58 **
Foreign Language 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0799	.0792	.00070	2	1,010	0.38
Intercept Differences for Ethnicity	11	12	.0792	.0737	.00550	2	1,012	3.02
Foreign Language 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1219	.1113	.01054	1	797	9.57 *
Foreign Language 1985 - 1986 Freshmen (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0535	.0439	.00963	2	795	4.05
Intercept Differences for Ethnicity	11	12	.0439	.0407	.00323	2	797	1.35
Foreign Language 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1555	.1424	.01310	1	892	13.84 **
Foreign Language 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0401	.0303	.00982	2	890	4.55
Intercept Differences for Ethnicity	11	12	.0303	.0290	.00130	2	892	0.60
Foreign Language 1985 - 1986 Sophomore (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1310	.1308	.00011	1	604	0.08
Sex & Ethnicity Interaction Test	2	3	.1308	.1303	.00055	1	605	0.38
Slope Differences for Sex	7	8	.1218	.1138	.00806	1	608	5.58
Intercept Differences for Sex	8	9	.1138	.0280	.08583	1	609	58.98 **
Slope Differences for Ethnicity	10	11	.0340	.0296	.00438	1	608	2.75
Intercept Differences for Ethnicity	11	12	.0296	.0280	.00161	1	609	1.01
Foreign Language 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1576	.1575	.00018	1	480	0.10
Intercept Differences for Sex	8	9	.1575	.0333	.12418	1	481	70.89 **
Foreign Language 1984 - 1985 Junior (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0531	.0445	.00868	2	478	2.19
Intercept Differences for Ethnicity	11	12	.0445	.0333	.01119	2	480	2.81

Table D-4. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df1	df2	F
Foreign Language 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1539	.1539	.00001	1	247	0.00
Intercept Differences for Sex	8	9	.1539	.0599	.09398	1	248	27.55 **
Foreign Language 1985 - 1986 Junior (Ethnicity = White & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0317	.0276	.00408	1	205	0.86
Intercept Differences for Ethnicity	11	12	.0276	.0275	.00011	1	206	0.02
Foreign Language 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1094	.1094	.00001	1	224	0.03
Intercept Differences for Sex	8	9	.1094	.0658	.04361	1	225	11.02 *
Foreign Language 1984 - 1985 Senior (Ethnicity = White & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0314	.0282	.00325	1	185	0.62
Intercept Differences for Ethnicity	11	12	.0282	.0275	.00062	1	186	0.12
Secretary & Office Education 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0416	.0413	.00031	1	215	0.07
Intercept Differences for Ethnicity	11	12	.0413	.0384	.00284	1	216	0.64
Secretary & Office Education 1984 - 1985 Senior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0379	.0375	.00037	1	220	0.08
Intercept Differences for Ethnicity	11	12	.0375	.0308	.00672	1	221	1.54
Typing & Word Processing 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1794	.1707	.00868	1	507	5.36
Intercept Differences for Sex	8	9	.1707	.1308	.03986	1	508	24.42 **
Typing & Word Processing 1984-1985 Freshmen (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1333	.1321	.00120	2	505	0.35
Intercept Differences for Ethnicity	11	12	.1321	.1308	.00126	2	507	0.37
Typing & Word Processing 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1265	.1261	.00036	1	492	0.20
Intercept Differences for Sex	8	9	.1261	.0721	.05404	1	493	30.49 **
Typing & Word Processing 1985-1986 Freshmen (Ethnicity = White & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0715	.0672	.00434	1	445	2.08
Intercept Differences for Ethnicity	11	12	.0672	.0656	.00156	1	446	0.75
Typing & Word Processing 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1268	.1212	.00559	1	631	4.04
Intercept Differences for Sex	8	9	.1212	.0443	.07694	1	632	55.33 **
Typing & Word Processing 1984-1985 Sophomore (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0481	.0454	.00277	2	629	0.92
Intercept Differences for Ethnicity	11	12	.0454	.0443	.00108	2	631	0.36

Table D-4. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Typing & Word Processing 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1317	.1058	.02586	1	405	12.06 **
Typing & Word Processing 1985-1986 Sophomore (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0706	.0706	.00001	1	374	0.00
Intercept Differences for Ethnicity	11	12	.0706	.0657	.00492	1	375	1.98
Typing & Word Processing 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1728	.1627	.01006	1	391	4.76
Intercept Differences for Sex	8	9	.1627	.0447	.11798	1	392	55.24 **
Typing & Word Processing 1984-1985 Junior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0484	.0484	.00000	1	359	0.00
Intercept Differences for Ethnicity	11	12	.0484	.0480	.00037	1	360	0.14
Typing & Word Processing 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1281	.1146	.01341	1	221	3.40
Intercept Differences for Sex	8	9	.1147	.0441	.07052	1	222	17.68 **
Typing & Word Processing 1985-1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0835	.0691	.01437	1	221	3.47
Intercept Differences for Ethnicity	11	12	.0691	.0441	.02500	1	222	5.96
Typing & Word Processing 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1064	.1064	.00004	1	216	0.01
Intercept Differences for Sex	8	9	.1064	.0546	.05175	1	217	12.57 **
Accounting/Bookkeeping 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1694	.1537	.01570	1	311	5.88
Intercept Differences for Sex	8	9	.1537	.0591	.09466	1	312	34.90 **
Accounting/Bookkeeping 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1771	.1682	.00888	1	239	2.[illegible]
Intercept Differences for Sex	8	9	.1682	.0238	.14445	1	240	41.68 **
Accounting/Bookkeeping 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0979	.0901	.00777	1	185	1.59
Intercept Differences for Sex	8	9	.0901	.0210	.06911	1	186	14.13 **
Accounting/Bookkeeping 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1398	.1389	.00086	1	247	0.25
Intercept Differences for Sex	8	9	.1389	.0411	.09781	1	248	28.17 **
Home Economics 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1938	.1937	.00005	1	547	0.04
Intercept Differences for Sex	8	9	.1937	.1073	.08645	1	548	58.76 **

Table D-4. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Home Economics 1984-1985 Freshmen (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1802	.1799	.00037	1	519	0.24
Intercept Differences for Ethnicity	11	12	.1799	.0990	.08085	1	520	51.26**
Home Economics 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1855	.1797	.00583	1	312	2.23
Intercept Differences for Sex	8	9	.1797	.0640	.11572	1	313	44.15 **
Home Economics 1985-1986 Freshmen (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0765	.0750	.00151	1	312	0.51
Intercept Differences for Ethnicity	11	12	.0750	.0640	.01100	1	313	3.72
Home Economics 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1654	.1654	.00004	1	321	0.01
Intercept Differences for Sex	8	9	.1654	.0636	.10175	1	322	39.26 **
Home Economics 1984-1985 Sophomore (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1142	.1110	.00313	1	321	1.13
Intercept Differences for Ethnicity	11	12	.1110	.0636	.04738	1	322	17.16**
Home Economics 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1363	.1348	.00159	1	394	0.73
Intercept Differences for Sex	8	9	.1347	.0373	.09746	1	395	44.49 **
Home Economics 1985-1986 Sophomore (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0449	.0427	.00221	1	394	0.91
Intercept Differences for Ethnicity	11	12	.0427	.0373	.00537	1	395	2.22
Home Economics 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1080	.1069	.00111	1	279	0.35
Intercept Differences for Sex	8	9	.1069	.0377	.06926	1	280	21.72 **
Home Economics 1984-1985 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0515	.0502	.00126	1	279	0.37
Intercept Differences for Ethnicity	11	12	.0502	.0377	.01256	1	280	3.70
Home Economics 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1746	.1722	.00236	1	358	1.02
Intercept Differences for Sex	8	9	.1722	.0094	.16283	1	359	70.62 **
Home Economics 1985-1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0226	.0220	.00054	1	358	0.20
Intercept Differences for Ethnicity	11	12	.0220	.0094	.01264	1	359	4.64
Home Economics 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1447	.1443	.00038	1	318	0.14
Intercept Differences for Sex	8	9	.1443	.0543	.09002	1	319	33.56 **

Table D-4. (Concluded)

F-Test Comparison	Comparison		R^2					
	Full	Restricted	Full	Restricted	R^2 Change	df1	df2	F
Home Economics 1984-1985 Senior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0572	.0547	.00245	1	318	0.83
Intercept Differences for Ethnicity	11	12	.0548	.0543	.00046	1	319	0.15
Computer Programming 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1718	.1678	.00406	1	227	1.11
Intercept Differences for Sex	8	9	.1678	.0354	.13239	1	228	36.27 **
Computer Programming 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2341	.2340	.00003	1	240	0.01
Intercept Differences for Sex	8	9	.2340	.1298	.10421	1	241	32.79 **
Computer Programming 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2065	.2034	.00303	1	157	0.60
Intercept Differences for Sex	8	9	.2034	.0363	.16711	1	158	33.15 **
Computer Programming 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1027	.1027	.00007	[illegible]	152	0.01
Intercept Differences for Sex	8	9	.1027	.0936	.00909	1	153	1.55

* $p < .01$.

** $p < .001$.

Table D-5. F-Tests of Significance for Business & Clerical Composite

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
English I - IV 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2634	.2628	.00059	2	2,422	0.96
Sex & Ethnicity Interaction Test	2	3	.2628	.2558	.00702	2	2,424	11.54 **
Consistent Over or Under prediction of Subgroup	2	4	.2628	.2494	.01345	3	2,424	14.75 **
Slope Differences for Sex	2	5	.2628	.2609	.00192	1	2,424	6.30
English I - IV 1985 - 1986 Freshmen (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2121	.2110	.00103	2	1,989	1.30
Sex & Ethnicity Interaction Test	2	3	.2110	.2071	.00391	2	1,991	4.94 *
Slope Differences for Sex	7	8	.1849	.1845	.00033	1	1,997	0.81
Intercept Differences for Sex	8	9	.1845	.1716	.01288	1	1,998	31.56 **
Slope Differences for Ethnicity	10	11	.1892	.1793	.00990	2	1,995	12.17 **
English I - IV 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2896	.2885	.00107	2	2,296	1.73
Sex & Ethnicity Interaction Test	2	3	.2885	.2876	.00094	2	2,298	1.53
Slope Differences for Sex	7	8	.2831	.2789	.00413	1	2,304	13.28 **
Slope Differences for Ethnicity	10	11	.2639	.2632	.00071	2	2,302	1.11
Intercept Differences for Ethnicity	11	12	.2632	.2605	.00268	2	2,304	4.19
English I - IV 1985 - 1986 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2323	.2312	.00109	2	1,942	1.38
Sex & Ethnicity Interaction Test	2	3	.2312	.2305	.00073	2	1,944	0.93
Slope Differences for Sex	7	8	.2122	.2084	.00379	1	1,950	9.39 *
Intercept Differences for Sex	8	9	.2084	.1816	.02677	1	1,951	65.98 **
Slope Differences for Ethnicity	10	11	.1987	.1943	.00434	2	1,948	5.28 *
Intercept Differences for Ethnicity	11	12	.1943	.1816	.01267	2	1,950	15.33 **
English I - IV 1984 - 1985 Junior (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2407	.2404	.00025	2	1,721	0.28
Sex & Ethnicity Interaction Test	2	3	.2404	.2402	.00025	2	1,723	0.28
Slope Differences for Sex	7	8	.2303	.2246	.00575	1	1,729	12.92 **
Slope Differences for Ethnicity	10	11	.1896	.1859	.00372	2	1,727	3.96
Intercept Differences for Ethnicity	11	12	.1859	.1829	.00303	2	1,729	3.22
English I - IV 1985 - 1986 Junior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2190	.2181	.00088	1	1,258	1.42
Sex & Ethnicity Interaction Test	2	3	.2181	.2181	.00000	1	1,259	0.00
Slope Differences for Sex	7	8	.2166	.2084	.00822	1	1,262	13.24 **
Slope Differences for Ethnicity	10	11	.1595	.1594	.00009	1	1,262	0.14
Intercept Differences for Ethnicity	11	12	.1594	.1590	.00039	1	1,263	0.59
English I - IV 1984 - 1985 Senior (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1898	.1862	.00360	2	1,275	2.83
Sex & Ethnicity Interaction Test	2	3	.1862	.1860	.00020	2	1,277	0.16
Slope Differences for Sex	7	8	.1776	.1741	.00351	1	1,283	5.47
Intercept Differences for Sex	8	9	.1741	.1599	.01413	1	1,284	21.97 **
Slope Differences for Ethnicity	10	11	.1658	.1621	.00369	2	1,281	2.84
Intercept Differences for Ethnicity	11	12	.1621	.1599	.00216	2	1,283	1.65

Table D-5. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
General Math 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1136	.1119	.00170	2	1,167	1.12
Sex & Ethnicity Interaction Test	2	3	.1119	.1091	.00278	2	1,169	1.83
Slope Differences for Sex	7	8	.1063	.1061	.00015	1	1,175	0.19
Intercept Differences for Sex	8	9	.1061	.1053	.00082	1	1,176	1.08
Slope Differences for Ethnicity	10	11	.1080	.1067	.00130	2	1,173	0.85
Intercept Differences for Ethnicity	11	12	.1067	.1053	.00139	2	1,175	0.91
General Math 1985 - 1986 Freshmen (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.0452	.0452	.00002	1	549	0.01
Sex & Ethnicity Interaction Test	2	3	.0452	.0415	.00374	1	550	2.16
Slope Differences for Sex	7	8	.0385	.0363	.00221	1	553	1.27
Intercept Differences for Sex	8	9	.0363	.0347	.00159	1	554	0.91
Slope Differences for Ethnicity	10	11	.0376	.0348	.00278	1	553	1.60
Intercept Differences for Ethnicity	11	12	.0348	.0347	.00004	1	554	0.03
General Math 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1209	.1134	.00753	2	736	3.15
Sex & Ethnicity Interaction Test	2	3	.1134	.1099	.00348	2	738	1.45
Slope Differences for Sex	7	8	.1084	.1079	.00051	1	744	0.43
Intercept Differences for Sex	8	9	.1079	.1079	.00005	1	745	0.04
Slope Differences for Ethnicity	10	11	.1093	.1091	.00023	2	742	0.10
Intercept Differences for Ethnicity	11	12	.1091	.1079	.00121	2	744	0.50
General Math 1985 - 1986 Sophomore (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1076	.1074	.00017	1	305	0.06
Sex & Ethnicity Interaction Test	2	3	.1074	.1042	.00319	1	306	1.09
Slope Differences for Sex	7	8	.0817	.0814	.00023	1	309	0.08
Intercept Differences for Sex	8	9	.0814	.0587	.02274	1	310	7.67 *
Slope Differences for Ethnicity	10	11	.0795	.0794	.00010	1	309	0.03
Intercept Differences for Ethnicity	11	12	.0794	.0587	.02072	1	310	6.98 *
General Math 1984 - 1985 Junior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.0741	.0738	.00037	1	266	0.11
Sex & Ethnicity Interaction Test	2	3	.0738	.0734	.00040	1	267	0.11
Slope Differences for Sex	7	8	.0635	.0633	.00019	1	270	0.05
Intercept Differences for Sex	8	9	.0633	.0464	.01689	1	271	4.89
Slope Differences for Ethnicity	10	11	.0545	.0543	.00014	1	270	0.04
Intercept Differences for Ethnicity	11	12	.0543	.0464	.00789	1	271	2.26
General Math 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1045	.1044	.00002	1	222	0.00
Intercept Differences for Sex	8	9	.1044	.0921	.01231	1	223	3.06
General Math 1985 - 1986 Junior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1317	.1316	.00008	1	195	0.02
Intercept Differences for Ethnicity	11	12	.1316	.1186	.01303	1	196	2.94

Table D-5. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df1	df2	F
General Math 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0638	.0637	.00006	1	230	0.01
Intercept Differences for Sex	8	9	.0637	.0635	.00021	1	231	0.05
General Math 1984 - 1985 Senior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1083	.1074	.00084	1	203	0.19
Intercept Differences for Ethnicity	11	12	.1074	.0654	.04202	1	204	9.60 *
Algebra 1984 - 1985 Freshmen (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2054	.2045	.00092	1	1,180	1.37
Sex & Ethnicity Interaction Test	2	3	.2045	.2044	.00007	1	1,181	0.11
Slope Differences for Sex	7	8	.2037	.2028	.00083	1	1,184	1.23
Intercept Differences for Sex	8	9	.2028	.1875	.01536	1	1,185	22.83 **
Slope Differences for Ethnicity	10	11	.1895	.1885	.00102	1	1,184	1.49
Intercept Differences for Ethnicity	11	12	.1885	.1875	.00103	1	1,185	1.51
Algebra 1985 - 1986 Freshmen (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2042	.2036	.00066	1	708	0.59
Sex & Ethnicity Interaction Test	2	3	.2036	.2023	.00123	1	709	1.10
Slope Differences for Sex	7	8	.1813	.1808	.00048	1	712	0.4[illegible]
Intercept Differences for Sex	8	9	.1808	.1663	.01458	1	713	12.69 **
Slope Differences for Ethnicity	10	11	.1845	.1798	.00470	1	712	4.10
Intercept Differences for Ethnicity	11	12	.1798	.1663	.01356	1	713	11.78 **
Algebra 1984 - 1985 Sophomore (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1720	.1720	.00000	1	871	0.00
Sex & Ethnicity Interaction Test	2	3	.1720	.1650	.00704	1	872	7.42 *
Slope Differences for Sex	7	8	.1648	.1575	.00727	1	875	7.62 *
Intercept Differences for Sex	8	9	.1575	.1521	.00544	1	876	5.66
Slope Differences for Ethnicity	10	11	.1524	.1524	.00002	1	875	0.02
Intercept Differences for Ethnicity	11	12	.1523	.1520	.00030	1	876	0.31
Algebra 1985 - 1986 Sophomore (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1398	.1397	.00015	1	617	0.11
Sex & Ethnicity Interaction Test	2	3	.1397	.1371	.00259	1	618	1.86
Slope Differences for Sex	7	8	.1276	.1269	.00068	1	621	0.48
Intercept Differences for Sex	8	9	.1269	.1237	.00321	1	622	2.29
Slope Differences for Ethnicity	10	11	.1314	.1294	.00196	1	621	1.40
Intercept Differences for Ethnicity	11	12	.1294	.1237	.00568	1	622	4.06
Algebra 1984 - 1985 Junior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2158	.2157	.00006	1	489	0.03
Sex & Ethnicity Interaction Test	2	3	.2157	.2132	.00252	1	490	1.57
Slope Differences for Sex	7	8	.1984	.1967	.00170	1	493	1.05
Intercept Differences for Sex	8	9	.1967	.1860	.01067	1	494	6.56
Slope Differences for Ethnicity	10	11	.2009	.1882	.01265	1	493	7.80 *
Intercept Differences for Ethnicity	11	12	.1882	.1860	.00225	1	494	1.37

Table D-5. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Algebra 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1453	.1388	.00647	1	273	2.07
Intercept Differences for Sex	8	9	.1388	.1380	.00082	1	274	0.26
Algebra 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1618	.1440	.01785	1	273	5.82
Intercept Differences for Ethnicity	11	12	.1440	.1380	.00601	1	274	1.92
Algebra 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1317	.1260	.00574	1	265	1.75
Intercept Differences for Sex	8	9	.1260	.1053	.02065	1	266	6.28
Algebra 1984 - 1985 Senior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1216	.1095	.01214	1	265	3.66
Intercept Differences for Ethnicity	11	12	.1095	.1053	.00414	1	266	1.24
Geometry 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2084	.2072	.00112	1	511	0.73
Intercept Differences for Sex	8	9	.2072	.2071	.00008	1	512	0.05
Geometry 1985 - 1986 Freshmen (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2149	.2136	.00126	2	509	0.41
Intercept Differences for Ethnicity	11	12	.2136	.2071	.00649	2	511	2.11
Geometry 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1684	.1658	.00264	1	561	1.78
Intercept Differences for Sex	8	9	.1658	.1657	.00004	1	562	0.02
Geometry 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1696	.1661	.00346	2	559	1.17
Intercept Differences for Ethnicity	11	12	.1661	.1657	.00040	2	561	0.13
Geometry 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1797	.1797	.00000	1	410	0.00
Intercept Differences for Sex	8	9	.1797	.1782	.00151	1	411	0.76
Geometry 1985 - 1986 Sophomore (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2464	.2117	.03468	1	371	17.08 **
Geometry 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1458	.1429	.00296	1	305	1.06
Intercept Differences for Sex	8	9	.1429	.1392	.00372	1	306	1.33
Geometry 1984 - 1985 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1448	.1392	.00562	1	305	2.00
Intercept Differences for Ethnicity	11	12	.1392	.1392	.00000	1	306	0.00

Table D-5. (Continued)

...st Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Geometry 1985 - 1986 Junior (Ethnicity not tested)								
...e Differences for Sex	7	8	.1178	.1175	.00033	1	123	0.05
...rcept Differences for Sex	8	9	.1175	.1175	.00000	1	124	0.00
Geometry 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
...e Differences for Ethnicity	10	11	.3033	.2405	.06284	1	123	11.09 *
Geometry 1984 - 1985 Senior (Ethnicity not tested)								
...e Differences for Sex	7	8	.1894	.1809	.00848	1	107	1.12
...rcept Differences for Sex	8	9	.1809	.1710	.00992	1	108	1.31
Geometry 1984 - 1985 Senior (Ethnicity = White & Nonwhite) (Sex not tested)								
...e Differences for Ethnicity	10	11	.2160	.2036	.01239	1	107	1.69
...rcept Differences for Ethnicity	11	12	.2036	.1710	.03266	1	108	4.43
Calculus 1985 - 1986 Junior (Ethnicity not tested)								
...e Differences for Sex	7	8	.0936	.0832	.01044	1	147	1.69
...rcept Differences for Sex	8	9	.0832	.0750	.00815	1	148	1.32
General Science 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic)								
...y Interaction Test (ASVAB*sex*ethnicity)	1	2	.2676	.2650	.00261	2	1,956	3.48
... & Ethnicity Interaction Test	2	3	.2650	.2556	.00938	2	1,958	12.50 **
...istent Over or Under prediction of Subgroup	2	4	.2650	.2578	.00718	3	1,958	6.38 **
...e Differences for Sex	2	5	.2650	.2649	.00009	1	1,958	0.24
General Science 1985 - 1986 Freshmen (Ethnicity not tested)								
...e Differences for Sex	7	8	.1071	.1037	.00340	1	274	1.04
...rcept Differences for Sex	8	9	.1037	.1025	.00120	1	275	0.37
General Science 1985 - 1986 Freshmen (Ethnicity = White & Black) (Sex not tested)								
...e Differences for Ethnicity	10	11	.1405	.1047	.03580	1	240	10.00 *
General Science 1984 - 1985 Sophomore (Ethnicity = White & Nonwhite)								
...y Interaction Test (ASVAB*sex*ethnicity)	1	2	.2705	.2699	.00063	1	341	0.29
... & Ethnicity Interaction Test	2	3	.2699	.2538	.01606	1	342	7.52 *
...e Differences for Sex	7	8	.2426	.2383	.00434	1	345	1.98
...rcept Differences for Sex	8	9	.2383	.2287	.00956	1	346	4.34
...e Differences for Ethnicity	10	11	.2433	.2390	.00427	1	345	1.95
...rcept Differences for Ethnicity	11	12	.2390	.2287	.01032	1	346	4.69
General Science 1985 - 1986 Sophomore (Ethnicity not tested)								
...e Differences for Sex	7	8	.1232	.1232	.00001	1	183	0.00
...rcept Differences for Sex	8	9	.1232	.1118	.01140	1	184	2.39
General Science 1985 - 1986 Sophomore (Ethnicity = White & Black) (Sex not tested)								
...e Differences for Ethnicity	10	11	.2002	.1907	.00956	1	158	1.89
...rcept Differences for Ethnicity	11	12	.1907	.1361	.05459	1	159	10.72 *

Table D-5. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
General Science 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0896	.0840	.00565	1	174	1.08
Intercept Differences for Sex	8	9	.0840	.0746	.00938	1	175	1.79
General Science 1984 - 1985 Junior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1697	.1691	.00058	1	149	0.10
Intercept Differences for Ethnicity	11	12	.1691	.0866	.08243	1	150	14.88 **
General Science 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1848	.1782	.00660	1	258	2.09
Intercept Differences for Sex	8	9	.1782	.1766	.00169	1	259	0.53
General Science 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2079	.1829	.02493	1	258	8.12 *
General Science 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0723	.0721	.00018	1	182	0.03
Intercept Differences for Sex	8	9	.0721	.0604	.01171	1	183	2.31
Biology I - II 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2172	.2170	.00022	1	299	0.09
Intercept Differences for Sex	8	9	.2170	.2145	.00247	1	300	0.95
Biology I - II 1984 - 1985 Freshmen (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2170	.2158	.00126	1	299	0.48
Intercept Differences for Ethnicity	11	12	.2158	.2145	.00126	1	300	0.48
Biology I - II 1985 - 1986 Freshmen (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1820	.1800	.00197	1	1,119	2.69
Sex & Ethnicity Interaction Test	2	3	.1800	.1799	.00012	1	1,120	0.17
Slope Differences for Sex	7	8	.1716	.1704	.00116	1	1,123	1.57
Intercept Differences for Sex	8	9	.1704	.1616	.00884	1	1,124	11.98 **
Slope Differences for Ethnicity	10	11	.1689	.1620	.00690	1	1,123	9.32 *
Intercept Differences for Ethnicity	11	12	.1620	.1616	.00040	1	1,124	0.54
Biology I - II 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2489	.2483	.00053	2	1,371	0.49
Sex & Ethnicity Interaction Test	2	3	.2483	.2415	.00684	2	1,373	6.24 *
Slope Differences for Sex	7	8	.2301	.2284	.00166	1	1,379	2.97
Intercept Differences for Sex	8	9	.2284	.2257	.00275	1	1,380	4.92
Slope Differences for Ethnicity	10	11	.2374	.2322	.00515	2	1,377	4.65 *
Intercept Differences for Ethnicity	11	12	.2322	.2257	.00653	2	1,379	5.86 *
Biology I - II 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2543	.2467	.00755	1	335	3.39
Intercept Differences for Sex	8	9	.2467	.2206	.02611	1	336	11.64 **

Table D-5. (Continued)

F-Test Comparison	Comparison		R^2					
	Full	Restricted	Full	Restricted	R^2 Change	df_1	df_2	F
Biology I - II 1985 - 1986 Sophomore (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2324	.2240	.00836	2	333	1.81
Intercept Differences for Ethnicity	11	12	.2240	.2206	.00340	2	335	0.73
Biology I - II 1984 - 1985 Junior (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2423	.2415	.00081	1	397	0.43
Sex & Ethnicity Interaction Test	2	3	.2415	.2364	.00511	1	398	2.68
Slope Differences for Sex	7	8	.2205	.2188	.00171	1	401	0.88
Intercept Differences for Sex	8	9	.2188	.2123	.00650	1	402	3.34
Slope Differences for Ethnicity	10	11	.2269	.2125	.01437	1	401	7.45 *
Intercept Differences for Ethnicity	11	12	.2125	.2123	.00023	1	402	0.12
Biology I - II 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.3898	.3611	.02873	1	147	6.92 *
Biology I - II 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.3017	.2993	.00238	1	195	0.66
Intercept Differences for Sex	8	9	.2993	.2911	.00822	1	196	2.30
Biology I - II 1984 - 1985 Senior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.3698	.3680	.00183	1	176	0.51
Intercept Differences for Ethnicity	11	12	.3680	.3067	.06123	1	177	17.15 **
Chemistry I - II 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2263	.2243	.00205	1	128	0.34
Intercept Differences for Sex	8	9	.2243	.2162	.00808	1	129	1.34
Chemistry I - II 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0946	.0738	.02084	1	168	3.87
Intercept Differences for Sex	8	9	.0738	.0643	.00951	1	169	1.73
Chemistry I - II 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1354	.1331	.00233	1	430	1.16
Intercept Differences for Sex	8	9	.1331	.1139	.01920	1	431	9.55 *
Chemistry I - II 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2021	.1990	.00309	1	426	1.65
Intercept Differences for Sex	8	9	.1990	.1772	.02182	1	427	11.63 **
Chemistry I - II 1984 - 1985 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2199	.1927	.02721	1	426	14.86 **
Chemistry I - II 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1556	.1554	.00017	1	137	0.03
Intercept Differences for Sex	8	9	.1554	.1197	.03569	1	138	5.83

Table D-5. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Chemistry I - II 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1277	.1229	.00486	1	137	0.76
Intercept Differences for Ethnicity	11	12	.1229	.1197	.00318	1	138	0.50
Chemistry I - II 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2054	.2044	.00099	1	156	0.19
Intercept Differences for Sex	8	9	.2044	.2011	.00333	1	157	0.66
Chemistry I - II 1984 - 1985 Senior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2243	.2014	.02293	1	156	4.61
Intercept Differences for Ethnicity	11	12	.2014	.2011	.00030	1	157	0.06
Physics I - II 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1694	.1568	.01262	1	232	3.52
Intercept Differences for Sex	8	9	.1568	.1401	.01672	1	233	4.62
Physics I - II 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1391	.1369	.00221	1	166	0.43
Intercept Differences for Sex	8	9	.1369	.1219	.01498	1	167	2.90
Government & Civics 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2742	.2742	.00001	1	344	0.00
Intercept Differences for Sex	8	9	.2742	.2742	.00006	1	345	0.03
Government & Civics 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2035	.1896	.01384	1	155	2.69
Intercept Differences for Sex	8	9	.1896	.1752	.01447	1	156	2.79
Government & Civics 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2073	.1980	.00929	1	417	4.89
Intercept Differences for Sex	8	9	.1980	.1902	.00779	1	418	4.06
Government & Civics 1985 - 1986 Sophomore (Ethnicity = White & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2348	.2345	.00032	1	388	0.16
Intercept Differences for Ethnicity	11	12	.2345	.2153	.01924	1	389	9.78 *
Government & Civics 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2377	.2368	.00092	1	456	0.55
Intercept Differences for Sex	8	9	.2368	.2342	.00262	1	457	1.57
Government & Civics 1984 - 1985 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2509	.2455	.00540	1	456	3.29
Intercept Differences for Ethnicity	11	12	.2455	.2342	.01137	1	457	6.88 *

Table D-5. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Government & Civics 1985 - 1986 Junior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2503	.2477	.00256	1	707	2.41
Sex & Ethnicity Interaction Test	2	3	.2477	.2470	.00074	1	708	0.69
Slope Differences for Sex	7	8	.2351	.2345	.00055	1	711	0.51
Intercept Differences for Sex	8	9	.2345	.2279	.00668	1	712	6.21
Slope Differences for Ethnicity	10	11	.2394	.2279	.01154	1	711	10.79 *
Intercept Differences for Ethnicity	11	12	.2279	.2279	.00001	1	712	0.01
Government & Civics 1984 - 1985 Senior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2295	.2295	.00003	1	602	0.02
Sex & Ethnicity Interaction Test	2	3	.2295	.2295	.00000	1	603	0.00
Slope Differences for Sex	7	8	.2268	.2267	.00015	1	606	0.12
Intercept Differences for Sex	8	9	.2267	.2257	.00096	1	607	0.75
Slope Differences for Ethnicity	10	11	.2286	.2266	.00200	1	606	1.57
Intercept Differences for Ethnicity	11	12	.2266	.2257	.00092	1	607	0.72
History 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2597	.2593	.00036	2	1,319	0.32
Sex & Ethnicity Interaction Test	2	3	.2593	.2549	.00445	2	1,321	3.96
Slope Differences for Sex	7	8	.2389	.2389	.00001	1	1,327	0.01
Intercept Differences for Sex	8	9	.2389	.2309	.00800	1	1,328	13.96 **
Slope Differences for Ethnicity	10	11	.2443	.2327	.01155	2	1,325	10.13 **
History 1985 - 1986 Freshmen (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2647	.2647	.00000	1	1,343	0.00
Sex & Ethnicity Interaction Test	2	3	.2647	.2647	.00002	1	1,344	0.03
Slope Differences for Sex	7	8	.2602	.2602	.00001	1	1,347	0.01
Intercept Differences for Sex	8	9	.2602	.2601	.00012	1	1,348	0.21
Slope Differences for Ethnicity	10	11	.2645	.2606	.00389	1	1,347	7.12 *
Intercept Differences for Ethnicity	11	12	.2606	.2601	.00052	1	1,348	0.94
History 1984 - 1985 Sophomore (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2809	.2807	.00028	1	1,430	0.56
Sex & Ethnicity Interaction Test	2	3	.2806	.2783	.00239	1	1,431	4.76
Slope Differences for Sex	7	8	.2755	.2754	.00011	1	1,434	0.21
Intercept Differences for Sex	8	9	.2754	.2740	.00147	1	1,435	2.91
Slope Differences for Ethnicity	10	11	.2763	.2758	.00056	1	1,434	1.10
Intercept Differences for Ethnicity	11	12	.2758	.2740	.00182	1	1,435	3.61
History 1985 - 1986 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2156	.2151	.00046	2	1,465	0.43
Sex & Ethnicity Interaction Test	2	3	.2151	.2080	.00710	2	1,467	6.63 *
Slope Differences for Sex	7	8	.1776	.1773	.00032	1	1,473	0.58
Intercept Differences for Sex	8	9	.1773	.1625	.01473	1	1,474	26.39 **
Slope Differences for Ethnicity	10	11	.1924	.1758	.01660	2	1,471	15.12 **

Table D-5. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
History 1984 - 1985 Junior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2989	.2987	.00020	1	1,102	0.32
Sex & Ethnicity Interaction Test	2	3	.2987	.2974	.00133	1	1,103	2.10
Slope Differences for Sex	7	8	.2864	.2862	.00026	1	1,106	0.40
Intercept Differences for Sex	8	9	.2862	.2787	.00748	1	1,107	11.60 **
Slope Differences for Ethnicity	10	11	.2884	.2861	.00235	1	1,106	3.66
Intercept Differences for Ethnicity	11	12	.2861	.2787	.00736	1	1,107	11.42 **
History 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2447	.2313	.01346	1	428	7.62 *
History 1985 - 1986 Junior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2254	.2236	.00180	1	409	0.95
Intercept Differences for Ethnicity	11	12	.2236	.2175	.00610	1	410	3.22
History 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.3308	.3294	.00139	1	423	0.88
Intercept Differences for Sex	8	9	.3294	.3294	.00001	1	424	0.01
History 1984 - 1985 Senior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.3742	.3709	.00326	1	402	2.09
Intercept Differences for Ethnicity	11	12	.3709	.3454	.02551	1	403	16.34 **
Foreign Language 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2796	.2793	.00030	1	1,012	0.43
Intercept Differences for Sex	8	9	.2793	.2558	.02351	1	1,013	33.04 **
Foreign Language 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2838	.2735	.01033	2	1,010	7.28 **
Foreign Language 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1866	.1855	.00112	1	797	1.10
Intercept Differences for Sex	8	9	.1855	.1615	.02401	1	798	23.52 **
Foreign Language 1985 - 1986 Freshmen (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1691	.1682	.00097	2	795	0.46
Intercept Differences for Ethnicity	11	12	.1682	.1615	.00667	2	797	3.19
Foreign Language 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2250	.2245	.00043	1	892	0.49
Intercept Differences for Sex	8	9	.2245	.1780	.04656	1	893	53.61 **
Foreign Language 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1912	.1882	.00303	2	890	1.66
Intercept Differences for Ethnicity	11	12	.1882	.1739	.01026	2	892	5.64 *

Table D-5. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Foreign Language 1985 - 1986 Sophomore (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1743	.1742	.00010	1	604	0.07
Sex & Ethnicity Interaction Test	2	3	.1742	.1741	.00004	1	605	0.03
Slope Differences for Sex	7	8	.1641	.1637	.00043	1	603	0.31
Intercept Differences for Sex	8	9	.1637	.1320	.03174	1	609	23.11 **
Slope Differences for Ethnicity	10	11	.1461	.1427	.00345	1	608	2.45
Intercept Differences for Ethnicity	11	12	.1427	.1320	.01070	1	609	7.60 *
Foreign Language 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2222	.2209	.00139	1	480	0.86
Intercept Differences for Sex	8	9	.2209	.1641	.05680	1	481	35.07 **
Foreign Language 1984 - 1985 Junior (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1872	.1781	.00909	2	478	2.67
Intercept Differences for Ethnicity	11	12	.1781	.1640	.01402	2	480	4.09
Foreign Language 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2049	.1993	.00566	1	247	1.76
Intercept Differences for Sex	8	9	.1993	.1795	.01977	1	248	6.12
Foreign Language 1985 - 1986 Junior (Ethnicity = White & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1569	.1350	.02186	1	205	5.31
Intercept Differences for Ethnicity	11	12	.1350	.1325	.00252	1	206	0.60
Foreign Language 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1580	.1566	.00142	1	224	0.38
Intercept Differences for Sex	8	9	.1566	.1474	.00913	1	225	2.44
Foreign Language 1984 - 1985 Senior (Ethnicity = White & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0905	.0893	.00128	1	185	0.26
Intercept Differences for Ethnicity	11	12	.0893	.0845	.00481	1	186	0.98
Secretary & Office Education 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1747	.1738	.00095	1	215	0.25
Intercept Differences for Ethnicity	11	12	.1737	.1737	.00000	1	216	0.00
Secretary & Office Education 1984 - 1985 Senior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0735	.0531	.02043	1	220	4.85
Intercept Differences for Ethnicity	11	12	.0531	.0483	.00480	1	221	1.12
Typing & Word Processing 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2945	.2942	.00025	1	507	0.18
Intercept Differences for Sex	8	9	.2942	.2925	.00176	1	508	1.27
Typing & Word Processing 1984 1985 Freshmen (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2976	.2958	.00175	2	505	0.63
Intercept Differences for Ethnicity	11	12	.2958	.2925	.00337	2	507	1.21

Table D-5. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df1	df2	F
Typing & Word Processing 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1955	.1954	.00008	1	492	0.05
Intercept Differences for Sex	8	9	.1954	.1865	.00895	1	493	5.49
Typing & Word Processing 1985-1986 Freshmen (Ethnicity = White & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2128	.2070	.00580	1	445	3.28
Intercept Differences for Ethnicity	11	12	.2070	.2048	.00221	1	446	1.24
Typing & Word Processing 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2302	.2302	.00004	1	631	0.03
Intercept Differences for Sex	8	9	.2302	.2187	.01147	1	632	9.42 *
Typing & Word Processing 1984-1985 Sophomore (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2193	.2191	.00022	2	629	0.09
Intercept Differences for Ethnicity	11	12	.2191	.2187	.00040	2	631	0.16
Typing & Word Processing 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1374	.1373	.00009	1	405	0.04
Intercept Differences for Sex	8	9	.1373	.1373	.00003	1	406	0.01
Typing & Word Processing 1985-1986 Sophomore (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1422	.1391	.00311	1	374	1.36
Intercept Differences for Ethnicity	11	12	.1391	.1361	.00302	1	375	1.31
Typing & Word Processing 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2207	.2206	.00004	1	391	0.02
Intercept Differences for Sex	8	9	.2206	.1883	.03231	1	392	16.25 **
Typing & Word Processing 1984-1985 Junior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1961	.1933	.00277	1	359	1.24
Intercept Differences for Ethnicity	11	12	.1933	.1916	.00168	1	360	0.75
Typing & Word Processing 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1283	.1225	.00579	1	221	1.47
Intercept Differences for Sex	8	9	.1225	.1096	.01292	1	222	3.27
Typing & Word Processing 1985-1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1378	.1343	.00348	1	221	0.89
Intercept Differences for Ethnicity	11	12	.1343	.1096	.02471	1	222	6.34
Typing & Word Processing 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1980	.1894	.00856	1	216	2.31
Intercept Differences for Sex	8	9	.1894	.1776	.01180	1	217	3.18
Accounting/Bookkeeping 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1762	.1761	.00015	1	311	0.06
Intercept Differences for Sex	8	9	.1761	.1573	.01882	1	312	7.13 *

Table D-5. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df1	df2	F
Accounting/Bookkeeping 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2898	.2896	.00026	1	239	0.09
Intercept Differences for Sex	8	9	.2896	.2546	.03496	1	240	11.81 **
Accounting/Bookkeeping 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1818	.1796	.00220	1	185	0.50
Intercept Differences for Sex	8	9	.1796	.1670	.01262	1	186	2.86
Accounting/Bookkeeping 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2049	.1931	.01179	1	247	3.66
Intercept Differences for Sex	8	9	.1931	.1700	.02302	1	248	7.08 *
Home Economics 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2836	.2828	.00081	1	547	0.62
Intercept Differences for Sex	8	9	.2828	.2608	.02200	1	548	16.81 **
Home Economics 1984-1985 Freshmen (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.3071	.3066	.00055	1	519	0.41
Intercept Differences for Ethnicity	11	12	.3066	.2451	.06150	1	520	46.12**
Home Economics 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1937	.1918	.00189	1	312	0.73
Intercept Differences for Sex	8	9	.1919	.1519	.03993	1	313	15.47 **
Home Economics 1985-1986 Freshmen (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1570	.1562	.00084	1	312	0.31
Intercept Differences for Ethnicity	11	12	.1562	.1519	.00428	1	313	1.59
Home Economics 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1951	.1950	.00017	1	321	0.07
Intercept Differences for Sex	8	9	.1950	.1604	.03453	1	322	13.81 **
Home Economics 1984-1985 Sophomore (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2070	.1917	.01536	1	321	6.22
Intercept Differences for Ethnicity	11	12	.1917	.1604	.03124	1	322	12.45**
Home Economics 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1945	.1921	.00248	1	394	1.21
Intercept Differences for Sex	8	9	.1921	.1625	.02958	1	395	14.46 **
Home Economics 1985-1986 Sophomore (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1717	.1628	.00889	1	394	4.23
Intercept Differences for Ethnicity	11	12	.1628	.1625	.00027	1	395	0.13
Home Economics 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1641	.1641	.00000	1	279	0.00
Intercept Differences for Sex	8	9	.1641	.1499	.01416	1	280	4.74

Table D-5. (Concluded)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Home Economics 1984-1985 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1569	.1545	.00241	1	279	0.80
Intercept Differences for Ethnicity	11	12	.1545	.1499	.00455	1	280	1.51
Home Economics 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2108	.2096	.00122	1	358	0.55
Intercept Differences for Sex	8	9	.2096	.1328	.07686	1	359	34.91 **
Home Economics 1985-1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1352	.1333	.00191	1	358	0.79
Intercept Differences for Ethnicity	11	12	.1333	.1327	.00051	1	359	0.21
Home Economics 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1533	.1527	.00066	1	318	0.25
Intercept Differences for Sex	8	9	.1527	.1224	.03023	1	319	11.38 **
Home Economics 1984-1985 Senior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1232	.1232	.00000	1	318	0.00
Intercept Differences for Ethnicity	11	12	.1232	.1225	.00079	1	319	0.29
Computer Programming 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2491	.2479	.00122	1	227	0.37
Intercept Differences for Sex	8	9	.2479	.2140	.03398	1	228	10.30 *
Computer Programming 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2069	.2067	.00013	1	240	0.04
Intercept Differences for Sex	8	9	.2067	.2056	.00115	1	241	0.35
Computer Programming 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.3532	.3502	.00306	1	157	0.74
Intercept Differences for Sex	8	9	.3502	.3012	.04897	1	158	11.91 **
Computer Programming 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1584	.1583	.00008	1	152	0.01
Intercept Differences for Sex	8	9	.1583	.1493	.00904	1	153	1.64

* $p < .01$.

** $p < .001$.

Table D-6. F-Tests of Significance for Electronics & Electrical Composite

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
English I - IV 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2525	.2525	.00003	2	2,422	0.05
Sex & Ethnicity Interaction Test	2	3	.2525	.2476	.00491	2	2,424	7.96 **
Consistent Over or Under prediction of Subgroup	2	4	.2525	.2475	.00503	3	2,424	5.44 *
English I - IV 1985 - 1986 Freshmen (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1989	.1976	.00137	2	1,989	1.70
Sex & Ethnicity Interaction Test	2	3	.1976	.1945	.00307	2	1,991	3.81
Slope Differences for Sex	7	8	.1881	.1863	.00181	1	1,997	4.45
Intercept Differences for Sex	8	9	.1863	.1371	.04923	1	1,998	120.88 **
Slope Differences for Ethnicity	10	11	.1421	.1391	.00300	2	1,995	3.49
Intercept Differences for Ethnicity	11	12	.1391	.1371	.00198	2	1,997	2.30
English I - IV 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2741	.2739	.00021	2	2,296	0.34
Sex & Ethnicity Interaction Test	2	3	.2739	.2721	.00177	2	2,298	2.80
Slope Differences for Sex	7	8	.2718	.2600	.01172	1	2,304	37.09 **
Slope Differences for Ethnicity	10	11	.1891	.1879	.00115	2	2,302	1.63
Intercept Differences for Ethnicity	11	12	.1879	.1869	.00102	2	2,304	1.44
English I - IV 1985 - 1986 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2377	.2370	.00076	2	1,942	0.97
Sex & Ethnicity Interaction Test	2	3	.2370	.2362	.00078	2	1,944	0.99
Slope Differences for Sex	7	8	.2311	.2222	.00889	1	1,950	22.54 **
Slope Differences for Ethnicity	10	11	.1526	.1521	.00051	2	1,948	0.58
Intercept Differences for Ethnicity	11	12	.1521	.1434	.00870	2	1,950	10.01 **
English I - IV 1984 - 1985 Junior (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2417	.2407	.00107	2	1,721	1.21
Sex & Ethnicity Interaction Test	2	3	.2407	.2405	.00017	2	1,723	0.19
Slope Differences for Sex	7	8	.2392	.2284	.01076	1	1,729	24.46 **
Slope Differences for Ethnicity	10	11	.1269	.1267	.00019	2	1,727	0.19
Intercept Differences for Ethnicity	11	12	.1267	.1241	.00260	2	1,729	2.58
English I - IV 1985 - 1986 Junior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2234	.2234	.00000	1	1,258	0.01
Sex & Ethnicity Interaction Test	2	3	.2234	.2234	.00000	1	1,259	0.00
Slope Differences for Sex	7	8	.2231	.2135	.00961	1	1,262	15.61 **
Slope Differences for Ethnicity	10	11	.1048	.1042	.00060	1	1,262	0.84
Intercept Differences for Ethnicity	11	12	.1042	.1042	.00008	1	1,263	0.12
English I - IV 1984 - 1985 Senior (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2063	.2056	.00070	2	1,275	0.57
Sex & Ethnicity Interaction Test	2	3	.2056	.2044	.00114	2	1,277	0.91
Slope Differences for Sex	7	8	.2010	.1964	.00459	1	1,283	7.37 *
Intercept Differences for Sex	8	9	.1964	.1466	.04984	1	1,284	79.64 **
Slope Differences for Ethnicity	10	11	.1490	.1476	.00136	2	1,281	1.03
Intercept Differences for Ethnicity	11	12	.1476	.1466	.00105	2	1,283	0.79

Table D-6. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
General Math 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.0760	.0747	.00123	2	1,167	0.78
Sex & Ethnicity Interaction Test	2	3	.0747	.0718	.00297	2	1,169	1.87
Slope Differences for Sex	7	8	.0690	.0682	.00078	1	1,175	0.99
Intercept Differences for Sex	8	9	.0682	.0553	.01287	1	1,176	16.24 **
Slope Differences for Ethnicity	10	11	.0585	.0585	.00003	2	1,173	0.02
Intercept Differences for Ethnicity	11	12	.0585	.0554	.00315	2	1,175	1.97
General Math 1985 - 19[illegible] Freshmen (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.0292	.0289	.00029	1	549	0.17
Sex & Ethnicity Interaction Test	2	3	.0289	.0259	.00301	1	550	1.70
Slope Differences for Sex	7	8	.0176	.0175	.00014	1	553	0.08
Intercept Differences for Sex	8	9	.0175	.0103	.00722	1	554	4.07
Slope Differences for Ethnicity	10	11	.0188	.0108	.00801	1	553	4.51
Intercept Differences for Ethnicity	11	12	.0108	.0103	.00055	1	554	0.31
General Math 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.0813	.0785	.00277	2	736	1.11
Sex & Ethnicity Interaction Test	2	3	.0785	.0727	.00582	2	738	2.33
Slope Differences for Sex	7	8	.0601	.0599	.00028	1	744	0.23
Intercept Differences for Sex	8	9	.0599	.0540	.00587	1	745	4.65
Slope Differences for Ethnicity	10	11	.0662	.0653	.00092	2	742	0.36
Intercept Differences for Ethnicity	11	12	.0653	.0540	.01130	2	744	4.50
General Math 1985 - 1986 Sophomore (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1245	.1190	.00552	1	305	1.92
Sex & Ethnicity Interaction Test	2	3	.1190	.1173	.00176	1	306	0.61
Slope Differences for Sex	7	8	.1037	.1034	.00026	1	309	0.09
Intercept Differences for Sex	8	9	.1034	.0581	.04530	1	310	15.66 **
Slope Differences for Ethnicity	10	11	.0736	.0688	.00481	1	309	1.60
Intercept Differences for Ethnicity	11	12	.0688	.0581	.01063	1	310	3.54
General Math 1984 - 1985 Junior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.0780	.0669	.01108	1	266	3.20
Sex & Ethnicity Interaction Test	2	3	.0669	.0667	.00001	1	267	0.00
Slope Differences for Sex	7	8	.0647	.0642	.00044	1	270	0.13
Intercept Differences for Sex	8	9	.0642	.0319	.03235	1	271	9.37 *
Slope Differences for Ethnicity	10	11	.0340	.0339	.00002	1	270	0.01
Intercept Differences for Ethnicity	11	12	.0339	.0319	.00206	1	271	0.58
General Math 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1355	.1310	.00451	1	222	1.16
Intercept Differences for Sex	8	9	.1310	.0903	.04069	1	223	10.44 *
General Math 1985 - 1986 Junior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1203	.1130	.00723	1	195	1.60
Intercept Differences for Ethnicity	11	12	.1130	.1125	.00052	1	196	0.11
General Math 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0942	.0904	.00378	1	230	0.96
Intercept Differences for Sex	8	9	.0904	.0863	.00404	1	231	1.03

Table D-6. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
General Math 1984 - 1985 Senior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1308	.1307	.00015	1	203	0.04
Intercept Differences for Ethnicity	11	12	.1307	.1147	.01603	1	204	3.76
Algebra 1984 - 1985 Freshmen (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1909	.1867	.00426	1	1,180	6.21
Sex & Ethnicity Interaction Test	2	3	.1867	.1864	.00023	1	1,181	0.33
Slope Differences for Sex	7	8	.1833	.1782	.00509	1	1,184	7.39 *
Intercept Differences for Sex	8	9	.1782	.1193	.05891	1	1,185	84.95 **
Slope Differences for Ethnicity	10	11	.1272	.1226	.00464	1	1,184	6.29
Intercept Differences for Ethnicity	11	12	.1226	.1193	.00328	1	1,185	4.42
Algebra 1985 - 1986 Freshmen (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1928	.1927	.00006	1	708	0.05
Sex & Ethnicity Interaction Test	2	3	.1927	.1913	.00145	1	709	1.28
Slope Differences for Sex	7	8	.1886	.1881	.00050	1	712	0.44
Intercept Differences for Sex	8	9	.1881	.1295	.05856	1	713	51.42 **
Slope Differences for Ethnicity	10	11	.1333	.1331	.00021	1	712	0.18
Intercept Differences for Ethnicity	11	12	.1331	.1295	.00354	1	713	2.92
Algebra 1984 - 1985 Sophomore (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1344	.1344	.00001	1	871	0.01
Sex & Ethnicity Interaction Test	2	3	.1344	.1285	.00596	1	872	6.01
Slope Differences for Sex	7	8	.1273	.1218	.00550	1	875	5.51
Intercept Differences for Sex	8	9	.1218	.0860	.03576	1	876	35.67 **
Slope Differences for Ethnicity	10	11	.0866	.0863	.00029	1	875	0.28
Intercept Differences for Ethnicity	11	12	.0863	.0860	.00027	1	876	0.26
Algebra 1985 - 1986 Sophomore (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1501	.1498	.00028	1	617	0.20
Sex & Ethnicity Interaction Test	2	3	.1498	.1482	.00159	1	618	1.16
Slope Differences for Sex	7	8	.1427	.1395	.00326	1	621	2.36
Intercept Differences for Sex	8	9	.1395	.1126	.02691	1	622	19.45 **
Slope Differences for Ethnicity	10	11	.1159	.1144	.00154	1	621	1.08
Intercept Differences for Ethnicity	11	12	.1144	.1126	.00179	1	622	1.26
Algebra 1984 - 1985 Junior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1855	.1845	.00095	1	489	0.57
Sex & Ethnicity Interaction Test	2	3	.1845	.1835	.00105	1	490	0.63
Slope Differences for Sex	7	8	.1722	.1701	.00206	1	493	1.23
Intercept Differences for Sex	8	9	.1701	.1210	.04910	1	494	29.23 **
Slope Differences for Ethnicity	10	11	.1290	.1244	.00462	1	493	2.61
Intercept Differences for Ethnicity	11	12	.1244	.1210	.00340	1	494	1.92
Algebra 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1687	.1522	.01641	1	273	5.39
Intercept Differences for Sex	8	9	.1523	.1322	.02005	1	274	6.48

Table D-6. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Algebra 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1367	.1336	.00316	1	273	1.00
Intercept Differences for Ethnicity	11	12	.1336	.1322	.00137	1	274	0.43
Algebra 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1710	.1569	.01406	1	265	4.49
Intercept Differences for Sex	8	9	.1569	.1017	.05524	1	266	17.43 **
Algebra 1984 - 1985 Senior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1353	.1131	.02215	1	265	6.79 *
Geometry 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2414	.2414	.00000	1	511	0.00
Intercept Differences for Sex	8	9	.2414	.2228	.01864	1	512	12.58 **
Geometry 1985 - 1986 Freshmen (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2250	.2236	.00145	2	509	0.48
Intercept Differences for Ethnicity	11	12	.2236	.2228	.00080	2	511	0.26
Geometry 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2446	.2446	.00000	1	561	0.00
Intercept Differences for Sex	8	9	.2446	.2147	.02990	1	562	22.25 **
Geometry 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2236	.2177	.00588	2	559	2.12
Intercept Differences for Ethnicity	11	12	.2177	.2147	.00301	2	561	1.08
Geometry 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2688	.2671	.00169	1	410	0.94
Intercept Differences for Sex	8	9	.2671	.2268	.04028	1	411	22.59 **
Geometry 1985 - 1986 Sophomore (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2589	.2424	.016[illegible]1	1	371	8.26 *
Geometry 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2202	.2160	.00420	1	305	1.64
Intercept Differences for Sex	8	9	.2161	.1708	.04524	1	306	17.66 **
Geometry 1984 - 1985 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1754	.1735	.001[illegible]3	1	305	0.72
Intercept Differences for Ethnicity	11	12	.1735	.1708	.00267	1	306	0.99
Geometry 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2579	.2511	.00682	1	123	1.13
Intercept Differences for Sex	8	9	.2511	.1991	.05201	1	124	8.61 *
Geometry 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2925	.2529	.03956	1	123	6.88 *

Table D-6. (Continued)

'est Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Geometry 1984 - 1985 Senior (Ethnicity not tested)								
pe Differences for Sex	7	8	.2121	.2095	.00255	1	107	0.35
'ercept Differences for Sex	8	9	.2095	.2091	.00042	1	108	0.06
Geometry 1984 - 1985 Senior (Ethnicity = White & Nonwhite) (Sex not tested)								
pe Differences for Ethnicity	10	11	.2323	.2285	.00382	1	107	0.53
ercept Differences for Ethnicity	11	12	.2285	.2091	.01941	1	1[illegible]	2.72
Calculus 1985 - 1986 Junior (Ethnicity not tested)								
pe Differences for Sex	7	8	.1030	.0957	.00722	1	147	1.18
'ercept Differences for Sex	8	9	.0957	.0948	.00094	1	148	0.15
General Science 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic)								
'ay Interaction Test (ASVAB*sex*ethnicity)	1	2	.2708	.2698	.00100	2	1,956	1.34
& Ethnicity Interaction Test	2	3	.2698	.2622	.00764	2	1,958	10.25 **
sistent Over or Under prediction of Subgroup	2	4	.2698	.2685	.00131	3	1,958	1.17
General Science 1985 - 1986 reshmen (Ethnicity not tested)								
pe Differences for Sex	7	8	.1476	.1475	.00015	1	274	0.05
ercept Differences for Sex	8	9	.1475	.1357	.01175	1	275	3.79
General Science 1985 - 1986 Freshmen (Ethnicity = White & Black) (Sex not tested)								
pe Differences for Ethnicity	10	11	.1572	.1377	.01942	1	240	5.53
ercept Differences for Ethnicity	11	12	.1377	.1377	.00006	1	241	0.02
General Science 1984 - 1985 Sophomore (Ethnicity = White & Nonwhite)								
'ay Interaction Test (ASVAB*sex*ethnicity)	1	2	.2313	.2312	.00001	1	341	0.00
& Ethnicity Interaction Test	2	3	.2312	.2158	.01547	1	342	6.88 *
pe Differences for Sex	7	8	.2002	.1985	.00176	1	345	0.76
ercept Differences for Sex	8	9	.1985	.1437	.05474	1	346	23.63 **
pe Differences for Ethnicity	10	11	.1636	.1600	.00362	1	345	1.49
ercept Differences for Ethnicity	11	12	.1600	.1437	.01623	1	346	6.68
General Science 1985 - 1986 Sophomore (Ethnicity not tested)								
pe Differences for Sex	7	8	.1782	.1782	.00001	1	183	0.00
ercept Differences for Sex	8	9	.1782	.1370	.04125	1	184	9.24 *
General Science 1985 - 1986 Sophomore (Ethnicity = White & Black) (Sex not tested)								
pe Differences for Ethnicity	10	11	.1832	.1830	.00015	1	158	0.03
ercept Differences for Ethnicity	11	12	.1830	.1596	.02339	1	159	4.55
General Science 1984 - 1985 Junior (Ethnicity not tested)								
pe Differences for Sex	7	8	.1015	.0837	.01784	1	174	3.45
ercept Differences for Sex	8	9	.0837	.0578	.02589	1	175	4.94
General Science 1984 - 1985 Junior (Ethnicity = White & Black) (Sex not tested)								
pe Differences for Ethnicity	10	11	.1289	.1240	.00495	1	149	0.85
ercept Differences for Ethnicity	11	12	.1240	.0609	.06307	1	150	10.80 *

Table D-6. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
General Science 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2314	.2310	.00040	1	258	0.14
Intercept Differences for Sex	8	9	.2310	.2050	.02603	1	259	8.77 *
General Science 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2056	.2054	.00019	1	258	0.06
Intercept Differences for Ethnicity	11	12	.2054	.2050	.00040	1	259	0.13
General Science 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1022	.1015	.00071	1	182	0.14
Intercept Differences for Sex	8	9	.1015	.0765	.02499	1	183	5.09
Biology I - II 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2303	.2301	.00020	1	299	0.08
Intercept Differences for Sex	8	9	.2301	.2007	.02942	1	300	11.47 **
Biology I - II 1984 - 1985 Freshmen (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2073	.2009	.00637	1	299	2.40
Intercept Differences for Ethnicity	11	12	.2009	.2007	.00022	1	300	0.08
Biology I - II 1985 - 1986 Freshmen (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1814	.1814	.00001	1	1,120	0.01
Sex & Ethnicity Interaction Test	2	3	.1814	.1814	.00000	1	1,120	0.00
Slope Differences for Sex	7	8	.1794	.1794	.00000	1	1,123	0.00
Intercept Differences for Sex	8	9	.1794	.1354	.04399	1	1,124	60.26 **
Slope Differences for Ethnicity	10	11	.1371	.1361	.00093	1	1,123	1.21
Intercept Differences for Ethnicity	11	12	.1361	.1354	.00074	1	1,124	0.97
Biology I - II 1984 - 1985 Sophomore (Ethnicity = White, Black Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2589	.2573	.00156	2	1,371	1.46
Sex & Ethnicity Interaction Test	2	3	.2573	.2499	.00748	2	1,373	6.91 *
Consistent Over or Under prediction of Subgroup	2	4	.2573	.2422	.01509	3	1,373	9.30 **
Slope Differences for Sex	2	5	.2573	.2424	.01496	1	1,373	27.65 **
Slope Differences for Ethnicity	2	6	.2573	.2570	.00036	2	1,373	0.33
Biology I - II 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2333	.2236	.00979	1	335	4.28
Intercept Differences for Sex	8	9	.2236	.1451	.07846	1	336	33.95 **
Biology I - II 1985 - 1986 Sophomore (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1505	.1457	.00478	2	333	0.94
Intercept Differences for Ethnicity	11	12	.1457	.1451	.00063	2	335	0.12
Biology I - II 1984 - 1985 Junior (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2709	.2709	.00006	1	397	0.03
Sex & Ethnicity Interaction Test	2	3	.2709	.2708	.00007	1	398	0.04
Slope Differences for Sex	7	8	.2594	.2583	.00110	1	401	0.59
Intercept Differences for Sex	8	9	.2584	.2027	.05568	1	402	30.18 **
Slope Differences for Ethnicity	10	11	.2176	.2173	.00023	1	401	0.12
Intercept Differences for Ethnicity	11	12	.2173	.2027	.01465	1	402	7.53 *

Table D-6. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df1	df2	F
Biology I - II 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.3610	.3329	.02810	1	147	6.46
Intercept Differences for Sex	8	9	.3329	.2745	.05840	1	148	12.96 **
Biology I - II 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.3638	.3593	.00443	1	195	1.36
Intercept Differences for Sex	8	9	.3593	.3124	.04699	1	196	14.38 **
Biology I - II 1984 - 1985 Senior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.3608	.3606	.00013	1	176	0.04
Intercept Differences for Ethnicity	11	12	.3606	.3210	.03966	1	177	10.98 *
Chemistry I - II 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1991	.1969	.00215	1	128	0.34
Intercept Differences for Sex	8	9	.1969	.1573	.03968	1	129	6.37
Chemistry I - II 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1060	.1039	.00206	1	168	0.39
Intercept Differences for Sex	8	9	.1040	.0646	.03938	1	169	7.43 *
Chemistry I - II 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1629	.1588	.00409	1	430	2.10
Intercept Differences for Sex	8	9	.1588	.0952	.06366	1	431	32.62 **
Chemistry I - II 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2039	.2035	.00033	1	426	0.18
Intercept Differences for Sex	8	9	.2035	.1332	.07029	1	427	37.68 **
Chemistry I - II 1984 - 1985 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1551	.1489	.00625	1	426	3.15
Intercept Differences for Ethnicity	11	12	.1489	.1333	.01562	1	427	7.84 *
Chemistry I - II 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1931	.1826	.01049	1	137	1.78
Intercept Differences for Sex	8	9	.1826	.0889	.09371	1	138	15.82 **
Chemistry I - II 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1182	.1145	.00376	1	137	0.58
Intercept Differences for Ethnicity	11	12	.1145	.0889	.02558	1	138	3.99
Chemistry I - II 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2422	.2412	.00103	1	156	0.21
Intercept Differences for Sex	8	9	.2412	.2314	.00977	1	157	2.02
Chemistry I - II 1984 - 1985 Senior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2587	.2415	.01720	1	156	3.62
Intercept Differences for Ethnicity	11	12	.2416	.2314	.01018	1	157	2.11

Table D-6. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Physics I - II 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1081	.1041	.00400	1	232	1.04
Intercept Differences for Sex	8	9	.1041	.0565	.04760	1	233	12.38 **
Physics I - II 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2039	.1982	.00576	1	166	1.20
Intercept Differences for Sex	8	9	.1982	.1250	.07312	1	167	15.23 **
Government & Civics 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2490	.2453	.00371	1	344	1.70
Intercept Differences for Sex	8	9	.2453	.2282	.01709	1	345	7.81 *
Government & Civics 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1807	.1558	.02490	1	155	4.71
Intercept Differences for Sex	8	9	.1558	.1090	.04685	1	156	8.66 *
Government & Civics 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1411	.1335	.00766	1	417	3.72
Intercept Differences for Sex	8	9	.1335	.0901	.04331	1	418	20.89 **
Government & Civics 1985 - 1986 Sophomore (Ethnicity = White & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1150	.1147	.00028	1	388	0.12
Intercept Differences for Ethnicity	11	12	.1147	.0909	.02385	1	389	10.48 *
Government & Civics 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2612	.2583	.00287	1	456	1.77
Intercept Differences for Sex	8	9	.2583	.2161	.04226	1	457	26.04 **
Government & Civics 1984 - 1985 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2211	.2201	.00098	1	456	0.57
Intercept Differences for Ethnicity	11	12	.2201	.2161	.00404	1	457	2.37
Government & Civics 1985 - 1986 Junior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2512	.2512	.00000	1	707	0.00
Sex & Ethnicity Interaction Test	2	3	.2512	.2504	.00080	1	708	0.76
Slope Differences for Sex	7	8	.2436	.2374	.00621	1	711	5.84
Intercept Differences for Sex	8	9	.2374	.1881	.04926	1	712	45.99 **
Slope Differences for Ethnicity	10	11	.1936	.1922	.00139	1	711	1.22
Intercept Differences for Ethnicity	11	12	.1922	.1882	.00404	1	712	3.56
Government & Civics 1984 - 1985 Senior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2628	.2618	.00100	1	602	0.81
Sex & Ethnicity Interaction Test	2	3	.2618	.2606	.00121	1	603	0.99
Slope Differences for Sex	7	8	.2511	.2505	.00056	1	606	0.45
Intercept Differences for Sex	8	9	.2506	.2224	.02811	1	607	22.77 **
Slope Differences for Ethnicity	10	11	.2318	.2316	.00017	1	606	0.13
Intercept Differences for Ethnicity	11	12	.2316	.2224	.00921	1	607	7.27 *

Table D-6. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
History 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2728	.2711	.00171	2	1,319	1.55
Sex & Ethnicity Interaction Test	2	3	.2711	.2681	.00305	2	1,321	2.77
Slope Differences for Sex	7	8	.2640	.2637	.00025	1	1,327	0.45
Intercept Differences for Sex	8	9	.2637	.2178	.04591	1	1,328	8[illegible].81 **
Slope Differences for Ethnicity	10	11	.2261	.2215	.00458	2	1,325	[illegible]
Intercept Differences for Ethnicity	11	12	.2215	.2178	.00370	2	1,327	[illegible].15
History 1985 - 1986 Freshmen (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2457	.2456	.00013	1	1,344	0.2[illegible]
Sex & Ethnicity Interaction Test	2	3	.2458	.2455	.00025	1	1,344	0.45
Slope Differences for Sex	7	8	.2455	.2451	.00035	1	1,347	0.63
Intercept Differences for Sex	8	9	.2451	.2248	.02036	1	1,348	36.35 *
Slope Differences for Ethnicity	10	11	.2248	.2248	.00002	1	1,347	0.0[illegible]
Intercept Differences for Ethnicity	11	12	.2248	.2248	.00003	1	1,348	0.06
History 1984 - 1985 Sophomore (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2559	.2551	.00077	1	1,430	1.48
Sex & Ethnicity Interaction Test	2	3	.2551	.2533	.00181	1	1,431	3.48
Slope Differences for Sex	7	8	.2515	.2511	.00047	1	1,434	0.91
Intercept Differences for Sex	8	9	.2510	.2176	.03342	1	1,435	64.03 **
Slope Differences for Ethnicity	10	11	.2198	.2193	.00053	1	1,434	0.98
Intercept Differences for Ethnicity	11	12	.2193	.2176	.00165	1	1,435	3.03
History 1985 - 1986 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2197	.2194	.00030	2	1,465	0.28
Sex & Ethnicity Interaction Test	2	3	.2194	.2133	.00616	2	1,467	5.79 *
Slope Differences for Sex	7	8	.2050	.2014	.00360	1	1,473	6.66 *
Intercept Differences for Sex	8	9	.2014	.1483	.05308	1	1,474	97.98 **
Slope Differences for Ethnicity	10	11	.1604	.1562	.00421	2	1,471	3.69
Intercept Differences for Ethnicity	11	12	.1562	.1483	.00793	2	1,473	6.93 *
History 1984 - 1985 Junior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2932	.2930	.00019	1	1,102	0.30
Sex & Ethnicity Interaction Test	2	3	.2930	.2923	.00068	1	1,103	1.06
Slope Differences for Sex	7	8	.2908	.2885	.00232	1	1,106	3.62
Intercept Differences for Sex	8	9	.2884	.2352	.05320	1	1,107	82.77 **
Slope Differences for Ethnicity	10	11	.2382	.2381	.00002	1	1,106	0.03
Intercept Differences for Ethnicity	11	12	.2381	.2352	.00289	1	1,107	4.19
History 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2422	.2291	.01319	1	428	7.45 *
History 1985 - 1986 Junior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1692	.1692	.00002	1	409	0.01
Intercept Differences for Ethnicity	11	12	.1692	.1661	.00308	1	410	1.52

Table D-6. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
History 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.3578	.3531	.00470	1	423	3.09
Intercept Differences for Sex	8	9	.3531	.3273	.02586	1	424	16.95 **
History 1984 - 1985 Senior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.3630	.3595	.00349	1	402	2.20
Intercept Differences for Ethnicity	11	12	.3595	.3365	.02294	1	403	14.44 **
Foreign Language 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2512	.2500	.00113	1	1,012	1.52
Intercept Differences for Sex	8	9	.2500	.1730	.07702	1	1,013	104.04 **
Foreign Language 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1939	.1934	.00049	2	1,010	0.30
Intercept Differences for Ethnicity	11	12	.1934	.1730	.02039	2	1,012	12.79 **
Foreign Language 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1992	.1937	.00554	1	797	5.51
Intercept Differences for Sex	8	9	.1937	.1268	.06681	1	798	66.11 **
Foreign Language 1985 - 1986 Freshmen (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1477	.1374	.01032	2	795	4.81 *
Foreign Language 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2107	.2075	.00320	1	892	3.62
Intercept Differences for Sex	8	9	.2075	.1034	.10410	1	893	117.30 **
Foreign Language 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1203	.1147	.00560	2	890	2.83
Intercept Differences for Ethnicity	11	12	.1147	.1034	.01127	2	892	5.68 *
Foreign Language 1985 - 1986 Sophomore (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1856	.1854	.00019	1	604	0.14
Sex & Ethnicity Interaction Test	2	3	.1854	.1851	.00023	1	605	0.17
Slope Differences for Sex	7	8	.1686	.1652	.00344	1	608	2.52
Intercept Differences for Sex	8	9	.1652	.0857	.07942	1	609	57.93 **
Slope Differences for Ethnicity	10	11	.1022	.1007	.00150	1	608	1.02
Intercept Differences for Ethnicity	11	12	.1007	.0857	.01494	1	609	10.12 *
Foreign Language 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2166	.2164	.00025	1	480	0.15
Intercept Differences for Sex	8	9	.2164	.1085	.10787	1	481	66.22 **
Foreign Language 1984 - 1985 Junior (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1421	.1317	.01044	2	478	2.91
Intercept Differences for Ethnicity	11	12	.1317	.1085	.02317	2	480	6.40 *

Table D-6. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Foreign Language 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2001	.1970	.00304	1	247	0.94
Intercept Differences for Sex	8	9	.1970	.1259	.07117	1	248	21.98 **
Foreign Language 1985 - 1986 Junior (Ethnicity = White & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0842	.0790	.00517	1	205	1.16
Intercept Differences for Ethnicity	11	12	.0790	.0757	.00333	1	206	0.74
Foreign Language 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1566	.1545	.00205	1	224	0.54
Intercept Differences for Sex	8	9	.1545	.1239	.03057	1	225	8.14 *
Foreign Language 1984 - 1985 Senior (Ethnicity = White & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0802	.0789	.00133	1	185	0.27
Intercept Differences for Ethnicity	11	12	.0789	.0725	.00636	1	186	1.28
Secretary & Office Education 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1029	.1010	.00193	1	215	0.46
Intercept Differences for Ethnicity	11	12	.1010	.1009	.00004	1	216	0.01
Secretary & Office Education 1984 - 1985 Senior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0949	.0885	.00639	1	220	1.55
Intercept Differences for Ethnicity	11	12	.0885	.0788	.00972	1	221	2.36
Typing & Word Processing 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2301	.2272	.00293	1	507	1.93
Intercept Differences for Sex	8	9	.2272	.2006	.02658	1	508	17.47 **
Typing & Word Processing 1984-1985 Freshmen (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2054	.2007	.00478	2	505	1.52
Intercept Differences for Ethnicity	11	12	.2006	.2006	.00006	2	507	0.02
Typing & Word Processing 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1640	.1627	.00125	1	492	0.73
Intercept Differences for Sex	8	9	.1627	.1223	.04044	1	493	23.81 **
Typing & Word Processing 1985-1986 Freshmen (Ethnicity = White & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1136	.1135	.00015	1	445	0.07
Intercept Differences for Ethnicity	11	12	.1135	.1090	.00444	1	446	2.23
Typing & Word Processing 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1926	.1886	.00400	1	631	3.12
Intercept Differences for Sex	8	9	.1886	.1234	.06520	1	632	50.78 **
Typing & Word Processing 1984-1985 Sophomore (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1252	.1244	.00083	2	629	0.30
Intercept Differences for Ethnicity	11	12	.1243	.1234	.00094	2	631	0.34

Table D-6. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Typing & Word Processing 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1481	.1338	.01430	1	405	6.80 *
Typing & Word Processing 1985-1986 Sophomore (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1128	.1121	.00071	1	374	0.30
Intercept Differences for Ethnicity	11	12	.1121	.1093	.00278	1	375	1.17
Typing & Word Processing 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1960	.1936	.00238	1	391	1.16
Intercept Differences for Sex	8	9	.1936	.1040	.08961	1	392	43.56 **
Typing & Word Processing 1984-1985 Junior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1099	.1091	.00083	1	359	0.34
Intercept Differences for Ethnicity	11	12	.1091	.1063	.00277	1	360	1.12
Typing & Word Processing 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1434	.1356	.00777	1	221	2.00
Intercept Differences for Sex	8	9	.1356	.0806	.05503	1	222	14.13 **
Typing & Word Processing 1985-1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1025	.0974	.00509	1	221	1.25
Intercept Differences for Ethnicity	11	12	.0974	.0806	.01687	1	222	4.15
Typing & Word Processing 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1909	.1843	.00661	1	216	1.76
Intercept Differences for Sex	8	9	.1843	.1364	.04789	1	217	12.74 **
Accounting/Bookkeeping 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2039	.1997	.00425	1	311	1.66
Intercept Differences for Sex	8	9	.1997	.1326	.06708	1	312	26.15 **
Accounting/Bookkeeping 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2911	.2822	.00890	1	239	3.00
Intercept Differences for Sex	8	9	.2822	.1454	.13681	1	240	45.74 **
Accounting/Bookkeeping 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1566	.1525	.00403	1	185	0.88
Intercept Differences for Sex	8	9	.1525	.0947	.05781	1	186	12.69 **
Accounting/Bookkeeping 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1835	.1807	.00284	1	247	0.86
Intercept Differences for Sex	8	9	.1807	.1140	.06664	1	248	20.17 **
Home Economics 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2601	.2600	.00005	1	547	0.04
Intercept Differences for Sex	8	9	.2600	.1979	.06220	1	548	46.06 **

Table D-6. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Home Economics 1984-1985 Freshmen (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2509	.2492	.00165	1	519	1.14
Intercept Differences for Ethnicity	11	12	.2492	.1836	.06559	1	520	45.43**
Home Economics 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1943	.1896	.00467	1	312	1.81
Intercept Differences for Sex	8	9	.1896	.1104	.07917	1	313	30.58 **
Home Economics 1985-1986 Freshmen (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1149	.1149	.00000	1	312	0.00
Intercept Differences for Ethnicity	11	12	.1149	.1104	.00445	1	313	1.57
Home Economics 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1882	.1879	.00025	1	321	0.10
Intercept Differences for Sex	8	9	.1879	.1170	.07091	1	322	28.12 **
Home Economics 1984-1985 Sophomore (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1608	.1524	.00837	1	321	3.20
Intercept Differences for Ethnicity	11	12	.1524	.1170	.03535	1	322	13.43**
Home Economics 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1882	.1873	.00090	1	394	0.44
Intercept Differences for Sex	8	9	.1873	.1033	.08402	1	395	40.84 **
Home Economics 1985-1986 Sophomore (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1107	.1046	.00601	1	394	2.66
Intercept Differences for Ethnicity	11	12	.1046	.1033	.00134	1	395	0.59
Home Economics 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1779	.1777	.00017	1	279	0.06
Intercept Differences for Sex	8	9	.1777	.1322	.04551	1	280	15.50 **
Home Economics 1984-1985 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1381	.1341	.00399	1	279	1.29
Intercept Differences for Ethnicity	11	12	.1341	.1322	.00186	1	280	0.60
Home Economics 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2143	.2143	.00006	1	358	0.03
Intercept Differences for Sex	8	9	.2143	.0702	.14412	1	359	65.85 **
Home Economics 1985-1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0757	.0740	.00173	1	358	0.67
Intercept Differences for Ethnicity	11	12	.0740	.0702	.00381	1	359	1.48
Home Economics 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1566	.1564	.00021	1	318	0.08
Intercept Differences for Sex	8	9	.1564	.0974	.05904	1	319	22.33 **

Table D-6. (Concluded)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Home Economics 1984-1985 Senior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1038	.0979	.00595	1	318	2.11
Intercept Differences for Ethnicity	11	12	.0979	.0974	.00049	1	319	0.17
Computer Programming 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2343	.2288	.00557	1	227	1.65
Intercept Differences for Sex	8	9	.2288	.1251	.10371	1	228	30.66 **
Computer Programming 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2786	.2780	.00060	1	240	0.20
Intercept Differences for Sex	8	9	.2780	.2292	.04878	1	241	16.28 **
Computer Programming 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2909	.2908	.00014	1	157	0.03
Intercept Differences for Sex	8	9	.2908	.1578	.13301	1	158	29.63 **
Computer Programming 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1753	.1736	.00171	1	152	0.32
Intercept Differences for Sex	8	9	.1736	.1705	.00307	1	153	0.57

* $p < .01$.

** $p < .001$.

Table D-7. F-Tests of Significance for Health, Soc Tech Composite

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
English I - IV 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2428	.2411	.00175	2	2,422	2.80
Sex & Ethnicity Interaction Test	2	3	.2411	.2365	.00458	2	2,424	7.32 **
Consistent Over or Under prediction of Subgroup	2	4	.2411	.2372	.00389	3	2,424	4.14 *
English I - IV 1985 - 1986 Freshmen (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1887	.1870	.00172	2	1,989	2.11
Sex & Ethnicity Interaction Test	2	3	.1870	.1842	.00279	2	1,991	3.41
Slope Differences for Sex	7	8	.1763	.1757	.00062	1	1,997	1.50
Intercept Differences for Sex	8	9	.1757	.1274	.04830	1	1,998	117.07 **
Slope Differences for Ethnicity	10	11	.1337	.1298	.00394	2	1,995	4.53
Intercept Differences for Ethnicity	11	12	.1298	.1274	.00237	2	1,997	2.72
English I - IV 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2480	.2478	.00022	2	2,296	0.34
Sex & Ethnicity Interaction Test	2	3	.2478	.2466	.00113	2	2,298	1.73
Slope Differences for Sex	7	8	.2460	.2364	.00954	1	2,304	29.14 **
Slope Differences for Ethnicity	10	11	.1669	.1665	.00037	2	2,302	0.51
Intercept Differences for Ethnicity	11	12	.1665	.1650	.00153	2	2,304	2.11
English I - IV 1985 - 1986 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2318	.2307	.00116	2	1,942	1.46
Sex & Ethnicity Interaction Test	2	3	.2307	.2300	.00071	2	1,944	0.90
Slope Differences for Sex	7	8	.2245	.2143	.01019	1	1,950	25.63 **
Slope Differences for Ethnicity	10	11	.1451	.1449	.00022	2	1,948	0.25
Intercept Differences for Ethnicity	11	12	.1449	.1359	.00897	2	1,950	10.23 **
English I - IV 1984 - 1985 Junior (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2285	.2283	.00021	2	1,721	0.24
Sex & Ethnicity Interaction Test	2	3	.2283	.2280	.00028	2	1,723	0.31
Slope Differences for Sex	7	8	.2265	.2177	.00879	1	1,729	19.64 **
Slope Differences for Ethnicity	10	11	.1181	.1179	.00023	2	1,727	0.23
Intercept Differences for Ethnicity	11	12	.1179	.1159	.00197	2	1,729	1.93
English I - IV 1985 - 1986 Junior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2008	.2006	.00028	1	1,258	0.43
Sex & Ethnicity Interaction Test	2	3	.2006	.2005	.00002	1	1,259	0.02
Slope Differences for Sex	7	8	.2004	.1916	.00888	1	1,262	14.02 **
Slope Differences for Ethnicity	10	11	.0858	.0855	.00031	1	1,262	0.42
Intercept Differences for Ethnicity	11	12	.0855	.0853	.00020	1	1,263	0.28
English I - IV 1984 - 1985 Senior (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1935	.1929	.00058	2	1,275	0.46
Sex & Ethnicity Interaction Test	2	3	.1929	.1918	.00117	2	1,277	0.93
Slope Differences for Sex	7	8	.1834	.1776	.00581	1	1,283	9.13 *
Intercept Differences for Sex	8	9	.1776	.1343	.04332	1	1,284	67.64 **
Slope Differences for Ethnicity	10	11	.1389	.1345	.00435	2	1,281	3.24
Intercept Differences for Ethnicity	11	12	.1346	.1343	.00026	2	1,283	0.20

Table D-7. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
General Math 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.0715	.0706	.00088	2	1,167	0.55
Sex & Ethnicity Interaction Test	2	3	.0706	.0670	.00367	2	1,169	2.71
Slope Differences for Sex	7	8	.0637	.0632	.00051	1	1,175	0.64
Intercept Differences for Sex	8	9	.0632	.0507	.01241	1	1,176	15.57 **
Slope Differences for Ethnicity	10	11	.0546	.0536	.00101	2	1,173	0.63
Intercept Differences for Ethnicity	11	12	.0536	.0507	.00289	2	1,175	1.79
General Math 1985 - 1986 Freshmen (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.0349	.0349	.00008	1	549	0.05
Sex & Ethnicity Interaction Test	2	3	.0349	.0326	.00226	1	550	1.29
Slope Differences for Sex	7	8	.0276	.0265	.00112	1	553	0.64
Intercept Differences for Sex	8	9	.0265	.0185	.00796	1	554	4.53
Slope Differences for Ethnicity	10	11	.0241	.0199	.00417	1	553	2.36
Intercept Differences for Ethnicity	11	12	.0199	.0185	.00142	1	554	0.80
General Math 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.0826	.0809	.00173	2	736	0.70
Sex & Ethnicity Interaction Test	2	3	.0809	.0750	.00584	2	738	2.35
Slope Differences for Sex	7	8	.0610	.0598	.00121	1	744	0.96
Intercept Differences for Sex	8	9	.0598	.0536	.00619	1	745	4.90
Slope Differences for Ethnicity	10	11	.0674	.0646	.00283	2	742	1.13
Intercept Differences for Ethnicity	11	12	.0645	.0536	.01096	2	744	4.36
General Math 1985 - 1986 Sophomore (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1142	.1048	.00944	1	305	3.25
Sex & Ethnicity Interaction Test	2	3	.1048	.1030	.00177	1	306	0.60
Slope Differences for Sex	7	8	.0904	.0904	.00005	1	309	0.02
Intercept Differences for Sex	8	9	.0904	.0483	.04208	1	310	14.34 **
Slope Differences for Ethnicity	10	11	.0611	.0602	.00088	1	309	0.29
Intercept Differences for Ethnicity	11	12	.0602	.0483	.01193	1	310	3.94
General Math 1984 - 1985 Junior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.0714	.0714	.00004	1	266	0.01
Sex & Ethnicity Interaction Test	2	3	.0714	.0709	.00044	1	267	0.13
Slope Differences for Sex	7	8	.0689	.0650	.00389	1	270	1.13
Intercept Differences for Sex	8	9	.0650	.0315	.03349	1	271	9.71 *
Slope Differences for Ethnicity	10	11	.0337	.0330	.00070	1	270	0.20
Intercept Differences for Ethnicity	11	12	.0330	.0315	.00152	1	271	0.42
General Math 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1223	.1187	.00354	1	222	0.89
Intercept Differences for Sex	8	9	.1187	.0791	.03960	1	223	10.02 *
General Math 1985 - 1986 Junior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1007	.0977	.00304	1	195	0.66
Intercept Differences for Ethnicity	11	12	.0976	.0963	.00130	1	196	0.28

Table D-7. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
General Math 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0988	.0894	.00935	1	230	2.39
Intercept Differences for Sex	8	9	.0894	.0878	.00167	1	231	0.42
General Math 1984 - 1985 Senior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1217	.1196	.00207	1	203	0.48
Intercept Differences for Ethnicity	11	12	.1196	.1038	.01576	1	204	3.65
Algebra 1984 - 1985 Freshmen (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1817	.1749	.00677	1	1,180	9.77 *
Sex & Ethnicity Interaction Test	2	3	.1749	.1749	.00000	1	1,181	0.00
Slope Differences for Sex	7	8	.1723	.1696	.00265	1	1,184	3.79
Intercept Differences for Sex	8	9	.1696	.1127	.05692	1	1,185	81.23 **
Slope Differences for Ethnicity	10	11	.1198	.1146	.00521	1	1,184	7.01 *
Intercept Differences for Ethnicity	11	12	.1146	.1127	.00185	1	1,185	2.48
Algebra 1985 - 1986 Freshmen (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1887	.1886	.00001	1	708	0.01
Sex & Ethnicity Interaction Test	2	3	.1886	.1877	.00099	1	709	0.86
Slope Differences for Sex	7	8	.1833	.1830	.00032	1	712	0.28
Intercept Differences for Sex	8	9	.1830	.1254	.05760	1	713	50.27 **
Slope Differences for Ethnicity	10	11	.1310	.1292	.00185	1	712	1.51
Intercept Differences for Ethnicity	11	12	.1292	.1254	.00379	1	713	3.10
Algebra 1984 - 1985 Sophomore (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1164	.1160	.00038	1	871	0.37
Sex & Ethnicity Interaction Test	2	3	.1160	.1106	.00541	1	872	5.34
Slope Differences for Sex	7	8	.1095	.1052	.00433	1	875	4.25
Intercept Differences for Sex	8	9	.1052	.0692	.03603	1	876	35.27 **
Slope Differences for Ethnicity	10	11	.0695	.0693	.00019	1	875	0.18
Intercept Differences for Ethnicity	11	12	.0693	.0692	.00011	1	876	0.11
Algebra 1985 - 1986 Sophomore (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1298	.1298	.00001	1	617	0.01
Sex & Ethnicity Interaction Test	2	3	.1298	.1279	.00185	1	618	1.32
Slope Differences for Sex	7	8	.1219	.1191	.00279	1	621	1.97
Intercept Differences for Sex	8	9	.1191	.0932	.02590	1	622	18.29 **
Slope Differences for Ethnicity	10	11	.0974	.0960	.00139	1	621	0.96
Intercept Differences for Ethnicity	11	12	.0960	.0932	.00274	1	622	1.88
Algebra 1984 - 1985 Junior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1685	.1658	.00266	1	489	1.57
Sex & Ethnicity Interaction Test	2	3	.1658	.1648	.00099	1	490	0.58
Slope Differences for Sex	7	8	.1517	.1500	.00162	1	493	0.94
Intercept Differences for Sex	8	9	.1500	.1030	.04703	1	494	27.34 **
Slope Differences for Ethnicity	10	11	.1128	.1062	.00659	1	493	3.66
Intercept Differences for Ethnicity	11	12	.1062	.1030	.00323	1	494	1.79

Table D-7. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Algebra 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1165	.1048	.01178	1	273	3.64
Intercept Differences for Sex	8	9	.1048	.0898	.01496	1	274	4.58
Algebra 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1006	.0951	.00553	1	273	1.68
Intercept Differences for Ethnicity	11	12	.0951	.0898	.00529	1	274	1.60
Algebra 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1249	.1076	.01731	1	265	5.24
Intercept Differences for Sex	8	9	.1076	.0573	.05032	1	266	15.00 **
Algebra 1984 - 1985 Senior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0803	.0598	.02046	1	265	5.90
Intercept Differences for Ethnicity	11	12	.0598	.0573	.00254	1	266	0.72
Geometry 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2221	.2221	.00001	1	511	0.01
Intercept Differences for Sex	8	9	.2221	.2026	.01948	1	512	12.82 **
Geometry 1985 - 1986 Freshmen (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2078	.2041	.00376	2	509	1.21
Intercept Differences for Ethnicity	11	12	.2041	.2026	.00150	2	511	0.48
Geometry 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2382	.2369	.00131	1	561	0.96
Intercept Differences for Sex	8	9	.2369	.2126	.02428	1	562	17.88 **
Geometry 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2223	.2172	.00516	2	559	1.65
Intercept Differences for Ethnicity	11	12	.2172	.2126	.00458	2	561	1.64
Geometry 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2607	.2604	.00027	1	410	0.15
Intercept Differences for Sex	8	9	.2604	.2150	.04542	1	411	25.24 **
Geometry 1985 - 1986 Sophomore (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2460	.2312	.01488	1	371	7.32 *
Geometry 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2359	.2314	.00450	1	305	1.80
Intercept Differences for Sex	8	9	.2314	.1906	.04075	1	306	16.22 **
Geometry 1984 - 1985 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1966	.1951	.00152	1	305	0.58
Intercept Differences for Ethnicity	11	12	.1951	.1906	.00452	1	306	1.72

Table D-7. (Continued)

-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df1	df2	F
Geometry 1985 - 1986 Junior (Ethnicity not tested)								
lope Differences for Sex	7	8	.2504	.2494	.00097	1	123	0.16
ntercept Differences for Sex	8	9	.2494	.2130	.03638	1	124	6.01
Geometry 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
lope Differences for Ethnicity	10	11	.3019	.2585	.04344	1	123	7.65 *
Geometry 1984 - 1985 Senior (Ethnicity not tested)								
lope Differences for Sex	7	8	.2385	.2383	.00015	1	107	0.02
ntercept Differences for Sex	8	9	.2383	.2376	.00077	1	108	0.11
Geometry 1984 - 1985 Senior (Ethnicity = White & Nonwhite) (Sex not tested)								
lope Differences for Ethnicity	10	11	.2465	.2446	.00194	1	107	0.28
ntercept Differences for Ethnicity	11	12	.2446	.2376	.00700	1	108	1.00
Calculus 1985 - 1986 Junior (Ethnicity not tested)								
lope Differences for Sex	7	8	.0546	.0541	.00047	1	147	0.07
ntercept Differences for Sex	8	9	.0541	.0541	.00004	1	148	0.01
General Science 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic)								
-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2309	.2268	.00413	2	1,956	5.25 *
ex & Ethnicity Interaction Test	2	3	.2268	.2190	.00771	2	1,958	9.77 **
onsistent Over or Under prediction of Subgroup	2	4	.2268	.2261	.00061	3	1,958	0.51
General Science 1985 - 1986 Freshmen (Ethnicity not tested)								
lope Differences for Sex	7	8	.1194	.1173	.00209	1	274	0.65
ntercept Differences for Sex	8	9	.1173	.1062	.01112	1	275	3.46
General Science 1985 - 1986 Freshmen (Ethnicity = White & Black) (Sex not tested)								
lope Differences for Ethnicity	10	11	.1261	.1052	.02093	1	240	5.75
ntercept Differences for Ethnicity	11	12	.1052	.1049	.00034	1	241	0.09
General Science 1984 - 1985 Sophomore (Ethnicity = White & Nonwhite)								
-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2370	.2361	.00093	1	341	0.42
ex & Ethnicity Interaction Test	2	3	.2360	.2256	.01039	1	342	4.65
lope Differences for Sex	7	8	.2060	.2041	.00198	1	345	0.86
ntercept Differences for Sex	8	9	.2041	.1529	.05113	1	346	22.23 **
ope Differences for Ethnicity	10	11	.1795	.1739	.00563	1	345	2.37
ntercept Differences for Ethnicity	11	12	.1739	.1529	.02093	1	346	8.77 *
General Science 1985 - 1986 Sophomore (Ethnicity not tested)								
lope Differences for Sex	7	8	.1343	.1339	.00042	1	183	0.09
ntercept Differences for Sex	8	9	.1339	.0987	.03520	1	184	7.48 *
General Science 1985 - 1986 Sophomore (Ethnicity = White & Black) (Sex not tested)								
lope Dif[illegible] Ethnicity	10	11	.1603	.1555	.00480	1	158	0.90
ntercep[illegible] for Ethnicity	11	12	.1555	.1234	.03209	1	159	6.04

Table D-7. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
General Science 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0910	.0829	.00811	1	174	1.55
Intercept Differences for Sex	8	9	.0829	.0555	.02746	1	175	5.24
General Science 1984 - 1985 Junior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1223	.1205	.00181	1	149	0.31
Intercept Differences for Ethnicity	11	12	.1205	.0679	.05261	1	150	8.97 *
General Science 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2053	.2046	.00064	1	258	0.21
Intercept Differences for Sex	8	9	.2046	.1775	.02710	1	259	8.82 *
General Science 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1832	.1782	.00494	1	258	1.56
Intercept Differences for Ethnicity	11	12	.1782	.1775	.00069	1	259	0.22
General Science 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1082	.1079	.00027	1	182	0.05
Intercept Differences for Sex	8	9	.1079	.0806	.02734	1	183	5.61
Biology I - II 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2474	.2471	.00021	1	299	0.09
Intercept Differences for Sex	8	9	.2471	.2172	.02991	1	300	11.92 **
Biology I - II 1984 - 1985 Freshmen (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2209	.2172	.00371	1	299	1.42
Intercept Differences for Ethnicity	11	12	.2172	.2172	.00000	1	300	0.00
Biology I - II 1985 - 1986 Freshmen (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1819	.1818	.00005	1	1,119	0.07
Sex & Ethnicity Interaction Test	2	3	.1818	.1817	.00013	1	1,120	0.17
Slope Differences for Sex	7	8	.1801	.1801	.00000	1	1,123	0.00
Intercept Differences for Sex	8	9	.1801	.1366	.04348	1	1,124	59.60 **
Slope Differences for Ethnicity	10	11	.1376	.1374	.00020	1	1,123	0.26
Intercept Differences for Ethnicity	11	12	.1374	.1366	.00081	1	1,124	1.05
Biology I - II 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2268	.2265	.00028	2	1,371	0.24
Sex & Ethnicity Interaction Test	2	3	.2265	.2216	.00489	2	1,373	4.34
Slope Differences for Sex	7	8	.1938	.1895	.00433	1	1,379	7.40 *
Intercept Differences for Sex	8	9	.1895	.1603	.02922	1	1,380	49.75 **
Slope Differences for Ethnicity	10	11	.1806	.1772	.00344	2	1,377	2.89
Intercept Differences for Ethnicity	11	12	.1772	.1603	.01691	2	1,379	14.17 **
Biology I - II 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2122	.1998	.01236	1	335	5.26
Intercept Differences for Sex	8	9	.1998	.1308	.06905	1	336	28.99 **

Table D-7. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Biology I - II 1985 - 1986 Sophomore (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1336	.1315	.00202	2	333	0.39
Intercept Differences for Ethnicity	11	12	.1315	.1308	.00078	2	335	0.15
Biology I - II 1984 - 1985 Junior (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2368	.2357	.00108	1	397	0.56
Sex & Ethnicity Interaction Test	2	3	.2357	.2357	.00000	1	398	0.00
Slope Differences for Sex	7	8	.2247	.2212	.00356	1	401	1.84
Intercept Differences for Sex	8	9	.2212	.1736	.04758	1	402	24.56 **
Slope Differences for Ethnicity	10	11	.1866	.1846	.00202	1	401	1.00
Intercept Differences for Ethnicity	11	12	.1846	.1736	.01102	1	402	5.43
Biology I - II 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2918	.2811	.01073	1	147	2.23
Intercept Differences for Sex	8	9	.2811	.2127	.06839	1	148	14.08 **
Biology I - II 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.3506	.3482	.00241	1	195	0.72
Intercept Differences for Sex	8	9	.3482	.2986	.04962	1	196	14.92 **
Biology I - II 1984 - 1985 Senior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.3462	.3458	.00041	1	176	0.11
Intercept Differences for Ethnicity	11	12	.3458	.3067	.03902	1	177	10.56 *
Chemistry I - II 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1858	.1788	.00703	1	128	1.11
Intercept Differences for Sex	8	9	.1788	.1331	.04568	1	129	7.18 *
Chemistry I - II 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1010	.1000	.00103	1	168	0.19
Intercept Differences for Sex	8	9	.1000	.0603	.03971	1	169	7.46 *
Chemistry I - II 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1223	.1137	.00861	1	430	4.22
Intercept Differences for Sex	8	9	.1137	.0546	.05908	1	431	28.73 **
Chemistry I - II 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1961	.1946	.00147	1	426	0.78
Intercept Differences for Sex	8	9	.1946	.1224	.07224	1	427	38.30 **
Chemistry I - II 1984 - 1985 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1429	.1388	.00408	1	426	2.03
Intercept Differences for Ethnicity	11	12	.1388	.1224	.01640	1	427	8.13 *
Chemistry I - II 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1672	.1562	.01096	1	137	1.80
Intercept Differences for Sex	8	9	.1562	.0747	.08148	1	138	13.33 **

Table D-7. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Chemistry I - II 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0884	.0884	.00004	1	137	0.01
Intercept Differences for Ethnicity	11	12	.0884	.0747	.01367	1	138	2.07
Chemistry I - II 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1799	.1781	.00174	1	156	0.33
Intercept Differences for Sex	8	9	.1781	.1759	.00225	1	157	0.43
Chemistry I - II 1984 - 1985 Senior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2129	.1810	.03190	1	156	6.32
Intercept Differences for Ethnicity	11	12	.1810	.1759	.00506	1	157	0.97
Physics I - II 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1174	.1127	.00474	1	232	1.25
Intercept Differences for Sex	8	9	.1127	.0618	.05093	1	233	13.37 **
Physics I - II 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1842	.1842	.00002	1	166	0.00
Intercept Differences for Sex	8	9	.1842	.1130	.07116	1	167	14.57 **
Government & Civics 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2568	.2517	.00508	1	344	2.35
Intercept Differences for Sex	8	9	.2517	.2321	.01961	1	345	9.04 *
Government & Civics 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1312	.1247	.00654	1	155	1.17
Intercept Differences for Sex	8	9	.1247	.0796	.04514	1	156	8.05 *
Government & Civics 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1343	.1232	.01110	1	417	5.34
Intercept Differences for Sex	8	9	.1232	.0832	.03998	1	418	19.06 **
Government & Civics 1985 - 1986 Sophomore (Ethnicity = White & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1115	.1110	.00051	1	388	0.22
Intercept Differences for Ethnicity	11	12	.1110	.0888	.02224	1	389	9.73 *
Government & Civics 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2359	.2298	.00606	1	456	3.62
Intercept Differences for Sex	8	9	.2298	.1903	.03949	1	457	23.43 **
Government & Civics 1984 - 1985 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1964	.1952	.00125	1	456	0.71
Intercept Differences for Ethnicity	11	12	.1952	.1903	.00485	1	457	2.75

Table D-7. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Government & Civics 1985 - 1986 Junior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2529	.2518	.00102	1	707	0.97
Sex & Ethnicity Interaction Test	2	3	.2518	.2515	.00032	1	708	0.30
Slope Differences for Sex	7	8	.2420	.2325	.00952	1	711	8.93 *
Intercept Differences for Sex	8	9	.2325	.1830	.04948	1	712	45.90 **
Slope Differences for Ethnicity	10	11	.1905	.1889	.00158	1	711	1.39
Intercept Differences for Ethnicity	11	12	.1889	.1830	.00588	1	712	5.16
Government & Civics 1984 - 1985 Senior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2433	.2429	.00040	1	602	0.32
Sex & Ethnicity Interaction Test	2	3	.2429	.2423	.00052	1	603	0.42
Slope Differences for Sex	7	8	.2305	.2300	.00047	1	606	0.37
Intercept Differences for Sex	8	9	.2300	.2063	.02368	1	607	18.67 **
Slope Differences for Ethnicity	10	11	.2183	.2174	.00091	1	606	0.70
Intercept Differences for Ethnicity	11	12	.2174	.2063	.01107	1	607	8.58 *
History 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2689	.2682	.00067	2	1,319	0.60
Sex & Ethnicity Interaction Test	2	3	.2682	.2661	.00207	2	1,321	1.87
Slope Differences for Sex	7	8	.2636	.2629	.00077	1	1,327	1.39
Intercept Differences for Sex	8	9	.2629	.2130	.04986	1	1,328	89.83 **
Slope Differences for Ethnicity	10	11	.2198	.2157	.00405	2	1,325	3.44
Intercept Differences for Ethnicity	11	12	.2157	.2130	.00272	2	1,327	2.30
History 1985 - 1986 Freshmen (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2422	.2422	.00004	1	1,343	0.07
Sex & Ethnicity Interaction Test	2	3	.2422	.2418	.00042	1	1,344	0.74
Slope Differences for Sex	7	8	.2412	.2405	.00070	1	1,347	1.25
Intercept Differences for Sex	8	9	.2405	.2193	.02114	1	1,348	37.51 **
Slope Differences for Ethnicity	10	11	.2199	.2194	.00047	1	1,347	0.81
Intercept Differences for Ethnicity	11	12	.2194	.2193	.00006	1	1,348	0.10
History 1984 - 1985 Sophomore (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2429	.2428	.00014	1	1,430	0.26
Sex & Ethnicity Interaction Test	2	3	.2428	.2415	.00125	1	1,431	2.36
Slope Differences for Sex	7	8	.2403	.2398	.00052	1	1,434	0.97
Intercept Differences for Sex	8	9	.2398	.2055	.03430	1	1,435	64.74 **
Slope Differences for Ethnicity	10	11	.2075	.2074	.00004	1	1,434	0.08
Intercept Differences for Ethnicity	11	12	.2074	.2055	.00191	1	1,435	3.45
History 1985 - 1986 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2067	.2062	.00041	2	1,465	0.38
Sex & Ethnicity Interaction Test	2	3	.2062	.2008	.00547	2	1,467	5.06 *
Slope Differences for Sex	7	8	.1899	.1861	.00381	1	1,473	6.94 *
Intercept Differences for Sex	8	9	.1861	.1336	.05248	1	1,474	95.05 **
Slope Differences for Ethnicity	10	11	.1490	.1428	.00621	2	1,471	5.37 *
Intercept Differences for Ethnicity	11	12	.1428	.1336	.00918	2	1,473	7.89 **

Table D-7. (Continued)

F-Test Comparison	Comparison: Full	Comparison: Restricted	R^2: Full	R^2: Restricted	R^2 Change	df_1	df_2	F
History 1984 - 1985 Junior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2683	.2679	.00043	1	1,102	0.65
Sex & Ethnicity Interaction Test	2	3	.2679	.2672	.00069	1	1,103	1.04
Slope Differences for Sex	7	8	.2657	.2635	.00221	1	1,106	3.33
Intercept Differences for Sex	8	9	.2635	.2098	.05372	1	1,107	80.74 **
Slope Differences for Ethnicity	10	11	.2127	.2126	.0000[illegible]	1	1,106	0.11
Intercept Differences for Ethnicity	11	12	.2127	.2098	.00287	1	1,107	4.03
History 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2017	.1904	.01133	1	428	6.07
Intercept Differences for Sex	8	9	.1904	.1352	.05517	1	429	29.23 **
History 1985 - 1986 Junior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1367	.1359	.00076	1	409	0.36
Intercept Differences for Ethnicity	11	12	.1359	.1311	.00482	1	410	2.29
History 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.3101	.3041	.00603	1	423	3.70
Intercept Differences for Sex	8	9	.3041	.2846	.01949	1	424	11.88 **
History 1984 - 1985 Senior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.3358	.3302	.00559	1	402	3.38
Intercept Differences for Ethnicity	11	12	.3302	.3053	.02485	1	403	14.95 **
Foreign Language 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2334	.2327	.00075	1	1,012	0.99
Intercept Differences for Sex	8	9	.2327	.1600	.07271	1	1,013	95.99 **
Foreign Language 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1777	.1759	.00179	2	1,010	1.10
Intercept Differences for Ethnicity	11	12	.1759	.1600	.01594	2	1,012	9.79 **
Foreign Language 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1610	.1568	.00414	1	797	3.94
Intercept Differences for Sex	8	9	.1568	.0978	.05905	1	798	55.89 **
Foreign Language 1985 - 1986 Freshmen (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1121	.1037	.00839	2	795	3.76
Intercept Differences for Ethnicity	11	12	.1037	.0978	.00590	2	797	2.62
Foreign Language 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2016	.1973	.00430	1	892	4.81
Intercept Differences for Sex	8	9	.1973	.0924	.10491	1	893	116.72 **
Foreign Language 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1080	.1015	.00651	2	890	3.25
Intercept Differences for Ethnicity	11	12	.1015	.0924	.00910	2	892	4.52

Table D-7. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Foreign Language 1985 - 1986 Sophomore (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1555	.1551	.00048	1	604	0.35
Sex & Ethnicity Interaction Test	2	3	.1551	.1551	.00000	1	605	0.00
Slope Differences for Sex	7	8	.1419	.1400	.00191	1	608	1.35
Intercept Differences for Sex	8	9	.1400	.0658	.07426	1	609	52.58 **
Slope Differences for Ethnicity	10	11	.0763	.0763	.00002	1	608	0.01
Intercept Differences for Ethnicity	11	12	.0763	.0658	.01055	1	609	6.96 *
Foreign Language 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2032	.2022	.00101	1	480	0.61
Intercept Differences for Sex	8	9	.2022	.1019	.10027	1	481	60.46 **
Foreign Language 1984 - 1985 Junior (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1233	.1219	.00134	2	478	0.37
Intercept Differences for Ethnicity	11	12	.1219	.1019	.01999	2	480	5.46 *
Foreign Language 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1931	.1873	.00580	1	247	1.78
Intercept Differences for Sex	8	9	.1873	.1167	.07062	1	248	21.55 **
Foreign Language 1985 - 1986 Junior (Ethnicity = White & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0843	.0729	.01143	1	205	2.56
Intercept Differences for Ethnicity	11	12	.0729	.0709	.00202	1	206	0.45
Foreign Language 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1533	.1530	.00033	1	224	0.09
Intercept Differences for Sex	8	9	.1530	.1222	.03077	1	225	8.17 *
Foreign Language 1984 - 1985 Senior (Ethnicity = White & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0726	.0702	.00240	1	185	0.48
Intercept Differences for Ethnicity	11	12	.0702	.0655	.00471	1	186	0.94
Secretary & Office Education 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1148	.1140	.00083	1	215	0.20
Intercept Differences for Ethnicity	11	12	.1140	.1139	.00011	1	216	0.03
Secretary & Office Education 1984 - 1985 Senior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0999	.0913	.00861	1	220	2.10
Intercept Differences for Ethnicity	11	12	.0913	.0851	.00628	1	221	1.53
Typing & Word Processing 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2270	.2255	.00155	1	507	1.02
Intercept Differences for Sex	8	9	.2255	.2051	.02039	1	508	13.37 **
Typing & Word Processing 1984-1985 Freshmen (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2093	.2056	.00373	2	505	1.19
Intercept Differences for Ethnicity	11	12	.2056	.2051	.00053	2	507	0.17

Table D-7. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Typing & Word Processing 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1797	.1792	.00058	1	492	0.35
Intercept Differences for Sex	8	9	.1792	.1358	.04339	1	493	26.06 **
Typing & Word Processing 1985-1986 Freshmen (Ethnicity = White & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1370	.1326	.00444	1	445	2.29
Intercept Differences for Ethnicity	11	12	.1326	.1280	.00455	1	446	2.34
Typing & Word Processing 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1889	.1876	.00130	1	631	1.01
Intercept Differences for Sex	8	9	.1876	.1282	.05943	1	632	46.23 **
Typing & Word Processing 1984-1985 Sophomore (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1313	.1292	.00213	2	629	0.77
Intercept Differences for Ethnicity	11	12	.1292	.1282	.00104	2	631	0.38
Typing & Word Processing 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1651	.1550	.01003	1	405	4.86
Intercept Differences for Sex	8	9	.1550	.1329	.02213	1	406	10.63 *
Typing & Word Processing 1985-1986 Sophomore (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1277	.1269	.00072	1	374	0.31
Intercept Differences for Ethnicity	11	12	.1269	.1254	.00157	1	375	0.67
Typing & Word Processing 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2247	.2199	.00481	1	391	2.43
Intercept Differences for Sex	8	9	.2199	.1265	.09336	1	392	46.91 **
Typing & Word Processing 1984-1985 Junior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1350	.1347	.00036	1	359	0.15
Intercept Differences for Ethnicity	11	12	.1347	[illegible]	[illegible]	1	360	2.02
Typing & Word Processing 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1574	.1525	.00492	1	221	1.29
Intercept Differences for Sex	8	9	.1525	.0925	.06002	1	222	15.72 **
Typing & Word Processing 1985-1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1188	.1046	.01416	1	221	3.55
Intercept Differences for Ethnicity	11	12	.1046	.0925	.01214	1	222	3.01
Typing & Word Processing 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1765	.1757	.00073	1	216	0.19
Intercept Differences for Sex	8	9	.1757	.1354	.04035	1	217	10.62 *
Accounting/Bookkeeping 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2022	.1952	.00696	1	311	2.71
Intercept Differences for Sex	8	9	.1952	.1268	.06843	1	312	26.53 **

Table D-7. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Accounting/Bookkeeping 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2763	.2720	.00437	1	239	1.44
Intercept Differences for Sex	8	9	.2720	.1426	.12938	1	240	42.65 **
Accounting/Bookkeeping 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1127	.1061	.00659	1	185	1.37
Intercept Differences for Sex	8	9	.1061	.0551	.05097	1	186	10.61 *
Accounting/Bookkeeping 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1788	.1786	.00024	1	247	0.07
Intercept Differences for Sex	8	9	.1786	.1218	.05682	1	248	17.16 **
Home Economics 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2134	.2128	.00061	1	547	0.43
Intercept Differences for Sex	8	9	.2128	.1550	.05781	1	548	40.24 **
Home Economics 1984-1985 Freshmen (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2177	.2162	.00150	1	519	1.00
Intercept Differences for Ethnicity	11	12	.2162	.1449	.07133	1	520	47.32**
Home Economics 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1837	.1831	.00058	1	312	0.22
Intercept Differences for Sex	8	9	.1831	.1044	.07871	1	313	30.16 **
Home Economics 1985-1986 Freshmen (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1105	.1094	.00107	1	312	0.37
Intercept Differences for Ethnicity	11	12	.1094	.1044	.00501	1	313	1.76
Home Economics 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2053	.2053	.00003	1	321	0.01
Intercept Differences for Sex	8	9	.2053	.1269	.07844	1	322	31.78 **
Home Economics 1984-1985 Sophomore (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1664	.1595	.00692	1	321	2.67
Intercept Differences for Ethnicity	11	12	.1595	.1269	.03263	1	322	12.50**
Home Economics 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1740	.1727	.00122	1	394	0.58
Intercept Differences for Sex	8	9	.1727	.0957	.07699	1	395	36.76 **
Home Economics 1985-1986 Sophomore (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0975	.0971	.00037	1	394	0.16
Intercept Differences for Ethnicity	11	12	.0971	.0957	.00135	1	395	0.59
Home Economics 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1468	.1467	.00009	1	279	0.03
Intercept Differences for Sex	8	9	.1467	.1019	.04476	1	280	14.69 **

Table D-7. (Concluded)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Home Economics 1984-1985 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1060	.1058	.00013	1	279	0.04
Intercept Differences for Ethnicity	11	12	.1058	.1019	.00392	1	280	1.23
Home Economics 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1958	.1958	.00001	1	358	0.01
Intercept Differences for Sex	8	9	.1958	.0563	.13944	1	359	62.24 **
Home Economics 1985-1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0622	.0606	.00153	1	358	0.58
Intercept Differences for Ethnicity	11	12	.0606	.0563	.00430	1	359	1.64
Home Economics 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1693	.1689	.00039	1	318	0.15
Intercept Differences for Sex	8	9	.1689	.1112	.05768	1	319	22.14 **
Home Economics 1984-1985 Senior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1172	.1120	.00522	1	318	1.88
Intercept Differences for Ethnicity	11	12	.1120	.1112	.00089	1	319	0.29
Computer Programming 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2290	.2290	.00001	1	227	0.00
Intercept Differences for Sex	8	9	.2290	.1254	.10361	1	228	30.64 **
Computer Programming 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2620	.2584	.00359	1	240	1.17
Intercept Differences for Sex	8	9	.2584	.2061	.05230	1	241	17.00 **
Computer Programming 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.3000	.2997	.00034	1	157	0.08
Intercept Differences for Sex	8	9	.2997	.1497	.15001	1	158	33.84 **
Computer Programming 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1484	.1459	.00248	1	152	0.44
Intercept Differences for Sex	8	9	.1459	.1458	.00015	1	153	0.03

* $p < .01$.

** $p < .001$.

Table D-8. F-Tests of Significance for AFQT Composite

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
English I - IV 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2590	.2580	.00096	2	2,422	1.57
Sex & Ethnicity Interaction Test	2	3	.2580	.2533	.00472	2	2,424	7.72 **
Consistent Over or Under prediction of Subgroup	2	4	.2580	.2554	.00261	3	2,424	2.84
English I - IV 1985 - 1986 Freshmen (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2114	.2098	.00167	2	1,989	2.11
Sex & Ethnicity Interaction Test	2	3	.2098	.2072	.00259	2	1,991	3.26
Slope Differences for Sex	7	8	.1995	.1993	.00023	1	1,997	0.64
Intercept Differences for Sex	8	9	.1993	.1665	.03273	1	1,998	81.67 **
Slope Differences for Ethnicity	10	11	.1728	.1677	.00508	2	1,995	6.12 *
Intercept Differences for Ethnicity	11	12	.1677	.1665	.00119	2	1,997	1.42
English I - IV 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2806	.2805	.00006	2	2,296	0.10
Sex & Ethnicity Interaction Test	2	3	.2805	.2789	.00164	2	2,298	2.62
Slope Differences for Sex	7	8	.2787	.2724	.00635	1	2,304	20.27 **
Slope Differences for Ethnicity	10	11	.2258	.2255	.00035	2	2,302	0.52
Intercept Differences for Ethnicity	11	12	.2255	.2248	.00071	2	2,304	1.06
English I - IV 1985 - 1986 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2554	.2539	.00148	2	1,942	1.93
Sex & Ethnicity Interaction Test	2	3	.2539	.2528	.00111	2	1,944	1.44
Slope Differences for Sex	7	8	.2481	.2407	.00734	1	1,950	19.03 **
Slope Differences for Ethnicity	10	11	.1923	.1913	.00107	2	1,948	1.29
Intercept Differences for Ethnicity	11	12	.1913	.1856	.00570	2	1,950	6.87 *
English I - IV 1984 - 1985 Junior (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2603	.2601	.00019	2	1,721	0.23
Sex & Ethnicity Interaction Test	2	3	.2601	.2597	.00039	2	1,723	0.45
Slope Differences for Sex	7	8	.2573	.2499	.00741	1	1,729	17.24 **
Slope Differences for Ethnicity	10	11	.1803	.1792	.00107	2	1,727	1.12
Intercept Differences for Ethnicity	11	12	.1792	.1774	.00177	2	1,729	1.87
English I - IV 1985 - 1986 Junior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2279	.2277	.00013	1	1,258	0.21
Sex & Ethnicity Interaction Test	2	3	.2277	.2277	.00007	1	1,259	0.11
Slope Differences for Sex	7	8	.2276	.2205	.00709	1	1,262	11.58 **
Slope Differences for Ethnicity	10	11	.1420	.1420	.00000	1	1,262	0.01
Intercept Differences for Ethnicity	11	12	.1420	.1418	.00015	1	1,263	0.23
English I - IV 1984 - 1985 Senior (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2117	.2100	.00168	2	1,275	1.36
Sex & Ethnicity Interaction Test	2	3	.2100	.2092	.00082	2	1,277	0.66
Slope Differences for Sex	7	8	.2012	.1984	.00285	1	1,283	4.57
Intercept Differences for Sex	8	9	.1984	.1720	.02637	1	1,284	42.23 **
Slope Differences for Ethnicity	10	11	.1770	.1721	.00493	2	1,281	3.84
Intercept Differences for Ethnicity	11	12	.1721	.1720	.00010	2	1,283	0.08

Table D-8. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
General Math 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.0818	.0811	.00072	2	1,167	0.45
Sex & Ethnicity Interaction Test	2	3	.0811	.0773	.00376	2	1,169	2.39
Slope Differences for Sex	7	8	.0750	.0740	.00099	1	1,175	1.26
Intercept Differences for Sex	8	9	.0740	.0659	.00809	1	1,176	10.28 *
Slope Differences for Ethnicity	10	11	.0689	.0689	.00002	2	1,173	0.02
Intercept Differences for Ethnicity	11	12	.0689	.0659	.00295	2	1,175	1.86
General Math 1985 - 1986 Freshmen (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.0347	.0347	.00001	1	549	0.00
Sex & Ethnicity Interaction Test	2	3	.0347	.0325	.00217	1	550	1.24
Slope Differences for Sex	7	[illegible]	0259	.0223	.00358	1	553	2.03
Intercept Differences for Sex	8	9	.0223	.0165	.00583	1	554	3.31
Slope Differences for Ethnicity	10	11	.0239	.0174	.00643	1	553	3.64
Intercept Differences for Ethnicity	11	12	.0174	.0165	.00096	1	554	0.54
General Math 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.0795	.0782	.00132	2	736	0.53
Sex & Ethnicity Interaction Test	2	3	.0782	.0711	.00703	2	738	2.81
Slope Differences for Sex	7	8	.0593	.0590	.00029	1	744	0.23
Intercept Differences for Sex	8	9	.0590	.0559	.00306	1	745	2.42
Slope Differences for Ethnicity	10	11	.0680	.0653	.00271	2	742	1.08
Intercept Differences for Ethnicity	11	12	.0653	.0559	.00935	2	744	3.72
General Math 1985 - 1986 Sophomore (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1072	.1003	.00683	1	305	2.33
Sex & Ethnicity Interaction Test	2	3	.1003	.0979	.00242	1	306	0.82
Slope Differences for Sex	7	8	.0817	.0813	.00040	1	309	0.14
Intercept Differences for Sex	8	9	.0813	.0464	.03484	1	310	11.76 **
Slope Differences for Ethnicity	10	11	.0615	.0602	.00139	1	309	0.46
Intercept Differences for Ethnicity	11	12	.0602	.0464	.01373	1	310	4.53
General Math 1984 - 1985 Junior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.0590	.0573	.00178	1	266	0.50
Sex & Ethnicity Interaction Test	2	3	.0573	.0572	.00007	1	267	0.02
Slope Differences for Sex	7	8	.0529	.0515	.00139	1	270	0.40
Intercept Differences for Sex	8	9	.0515	.0269	.02468	1	271	7.05 *
Slope Differences for Ethnicity	10	11	.0302	.0299	.00026	1	270	0.07
Intercept Differences for Ethnicity	11	12	.0299	.0269	.00306	1	271	0.85
General Math 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1252	.1236	.00166	1	222	0.42
Intercept Differences for Sex	8	9	.1236	.0998	.02379	1	223	6.05

Table D-8. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
General Math 1985 - 1986 Junior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1230	.1186	.00446	1	195	0.99
Intercept Differences for Ethnicity	11	12	.1186	1165	.00208	1	196	0.46
General Math 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0843	.0806	.00368	1	230	0.93
Intercept Differences for Sex	8	9	.0806	.0804	.00020	1	231	0.05
General Math 1984 - 1985 Senior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1204	.1195	.00084	1	203	0.19
Intercept Differences for Ethnicity	11	12	.1195	.0994	.02016	1	204	4.67
Algebra 1984 - 1985 Freshmen (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1995	.1935	.00607	1	1,180	8.94 *
Sex & Ethnicity Interaction Test	2	3	.1935	.1934	.00002	1	1,181	0.02
Slope Differences for Sex	7	8	.1899	.1877	.00222	1	1,184	3.25
Intercept Differences for Sex	8	9	.1877	.1503	.03744	1	1,185	54.63 **
Slope Differences for Ethnicity	10	11	.1584	.1540	.00442	1	1,184	6.22
Intercept Differences for Ethnicity	11	12	.1540	.1503	.00368	1	1,185	5.15
Algebra 1985 - 1986 Freshmen (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2017	.2016	.00002	1	708	0.02
Sex & Ethnicity Interaction Test	2	3	.2016	.1999	.00173	1	709	1.54
Slope Differences for Sex	7	8	.1973	.1972	.00003	1	712	0.03
Intercept Differences for Sex	8	9	.1972	.1595	.03772	1	713	33.50 **
Slope Differences for Ethnicity	10	11	.1618	.1614	.00034	1	712	0.28
Intercept Differences for Ethnicity	11	12	.1614	.1595	.00194	1	713	1.65
Algebra 1984 - 1985 Sophomore (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1432	.1432	.00000	1	871	0.00
Sex & Ethnicity Interaction Test	2	3	.1432	.1373	.00589	1	872	5.99
Slope Differences for Sex	7	8	.1349	.1325	.00243	1	875	2.45
Intercept Differences for Sex	8	9	.1325	.1102	.02227	1	876	22.49 **
Slope Differences for Ethnicity	10	11	.1124	.1112	.00119	1	875	1.17
Intercept Differences for Ethnicity	11	12	.1112	.1102	.00102	1	876	1.01
Algebra 1985 - 1986 Sophomore (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1407	.1407	.00002	1	617	0.02
Sex & Ethnicity Interaction Test	2	3	.1407	.1384	.00229	1	618	1.65
Slope Differences for Sex	7	8	.1332	.1324	.00088	1	621	0.63
Intercept Differences for Sex	8	9	.1324	.1171	.01531	1	622	10.98 *
Slope Differences for Ethnicity	10	11	.1203	.1182	.00207	1	621	1.46
Intercept Differences for Ethnicity	11	12	.1182	.1171	.00115	1	622	0.81

Table D-8. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Algebra 1984 - 1985 Junior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1900	.1896	.00039	1	489	0.24
Sex & Ethnicity Interaction Test	2	3	.1896	.1879	.00169	1	490	1.02
Slope Differences for Sex	7	8	.1749	.1745	.00041	1	493	0.25
Intercept Differences for Sex	8	9	.1745	.1475	.02702	1	494	16.17 **
Slope Differences for Ethnicity	10	11	.1602	.1544	.00574	1	493	3.37
Intercept Differences for Ethnicity	11	12	.1544	.1475	.00698	1	494	4.08
Algebra 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1377	.1331	.00463	1	273	1.47
Intercept Differences for Sex	8	9	.1331	.1262	.00691	1	274	2.18
Algebra 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1407	.1285	.01227	1	273	3.90
Intercept Differences for Ethnicity	11	12	.1285	.1262	.00228	1	274	0.72
Algebra 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1596	.1492	.01037	1	265	3.27
Intercept Differences for Sex	8	9	.1492	.1147	.03457	1	266	10.81 *
Algebra 1984 - 1985 Senior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1472	.1273	.01997	1	265	6.20
Intercept Differences for Ethnicity	11	12	.1273	.1147	.01258	1	266	3.83
Geometry 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2441	.2439	.00018	1	511	0.12
Intercept Differences for Sex	8	9	.2439	.2392	.00469	1	512	3.18
Geometry 1985 - 1986 Freshmen (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2441	.2396	.00455	2	509	1.53
Intercept Differences for Ethnicity	11	12	.2396	.2393	.00034	2	511	0.12
Geometry 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2400	.2400	.00001	1	561	0.00
Intercept Differences for Sex	8	9	.2400	.2322	.00779	1	562	5.76
Geometry 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2444	.2356	.00882	2	559	3.26
Intercept Differences for Ethnicity	11	12	.2356	.2322	.00334	2	561	1.22
Geometry 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2768	.2765	.00028	1	410	0.16
Intercept Differences for Sex	8	9	.2765	.2558	.02063	1	411	11.72 **
Geometry 1985 - 1986 Sophomore (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2923	.2672	.02506	1	371	13.14 **
Geometry 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2342	.2330	.00112	1	305	0.45
Intercept Differences for Sex	8	9	.2330	.2141	.01896	1	306	7.56 *

Table D-8. (Continued)

Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Geometry 1984 - 1985 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
ope Differences for Ethnicity	10	11	.2195	.2192	.00034	1	305	0.13
tercept Differences for Ethnicity	11	12	.2192	.2141	.00513	1	306	2.01
Geometry 1985 - 1986 Junior (Ethnicity not tested)								
ope Differences for Sex	7	8	.2097	.2097	.00005	1	123	0.01
tercept Differences for Sex	8	9	.2097	.1949	.01481	1	124	2.32
Geometry 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
ope Differences for Ethnicity	10	11	.3029	.2441	.05873	1	123	10.36 *
Geometry 1984 - 1985 Senior (Ethnicity not tested)								
ope Differences for Sex	7	8	.2339	.2294	.00453	1	107	0.63
tercept Differences for Sex	8	9	.2294	.2276	.00174	1	108	0.24
Geometry 1984 - 1985 Senior (Ethnicity = White & Nonwhite) (Sex not tested)								
ope Differences for Ethnicity	10	11	.2451	.2403	.00471	1	107	0.67
tercept Differences for Ethnicity	11	12	.2403	.2276	.01271	1	108	1.81
Calculus 1985 - 1986 Junior (Ethnicity not tested)								
ope Differences for Sex	7	8	.1084	.1071	.00125	1	147	0.21
tercept Differences for Sex	8	9	.1071	.1070	.00015	1	148	0.02
General Science 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic)								
way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2690	.2655	.00347	2	1,956	4.64 *
& Ethnicity Interaction Test	2	3	.2655	.2578	.00777	2	1,958	10.36 **
nsistent Over or Under prediction of Subgroup	2	4	.2655	.2654	.00017	3	1,958	0.15
General Science 1985 - 1986 Freshmen (Ethnicity not tested)								
ope Differences for Sex	7	8	.1105	.1078	.00267	1	274	0.82
tercept Differences for Sex	8	9	.1078	.1014	.00640	1	275	1.97
General Science 1985 - 1986 Freshmen (Ethnicity = White & Black) (Sex not tested)								
ope Differences for Ethnicity	10	11	.1345	.1026	.03189	1	240	8.84 *
General Science 1984 - 1985 Sophomore (Ethnicity = White & Nonwhite)								
way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2447	.2426	.00212	1	341	0.96
x & Ethnicity Interaction Test	2	3	.2426	.2303	.01229	1	342	5.55
ope Differences for Sex	7	8	.2146	.2135	.00105	1	345	0.46
tercept Differences for Sex	8	9	.2135	.1803	.03328	1	346	14.64 **
ope Differences for Ethnicity	10	11	.2025	.1981	.00445	1	345	1.93
tercept Differences for Ethnicity	11	12	.1981	.1803	.01782	1	346	7.69 *
General Science 1985 - 1986 Sophomore (Ethnicity not tested)								
ope Differences for Sex	7	8	.1450	.1445	.00047	1	183	0.10
tercept Differences for Sex	8	9	.1445	.1190	.02553	1	184	5.49
General Science 1985 - 1986 Sophomore (Ethnicity = White & Black) (Sex not tested)								
ope Differences for Ethnicity	10	11	.1784	.1724	.00606	1	158	1.17
tercept Differences for Ethnicity	11	12	.1724	.1426	.02974	1	159	5.71

Table D-8. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
General Science 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0917	.0899	.00172	1	174	0.33
Intercept Differences for Sex	8	9	.0899	.0735	.01647	1	175	3.17
General Science 1984 - 1985 Junior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1500	.1479	.00217	1	149	0.38
Intercept Differences for Ethnicity	11	12	.1479	.0926	.05525	1	150	9.73 *
General Science 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2438	.2435	.00033	1	258	0.11
Intercept Differences for Sex	8	9	.2435	.2299	.01352	1	259	4.63
General Science 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2328	.2300	.00279	1	258	0.94
Intercept Differences for Ethnicity	11	12	.2300	.2299	.00002	1	259	0.01
General Science 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1006	.0999	.00066	1	182	0.13
Intercept Differences for Sex	8	9	.0999	.0816	.01833	1	183	3.73
Biology I - II 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2265	.2262	.00028	1	299	0.11
Intercept Differences for Sex	8	9	.2262	.2142	.01205	1	300	4.67
Biology I - II 1984 - 1985 Freshmen (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2180	.2142	.00381	1	299	1.46
Intercept Differences for Ethnicity	11	12	.2142	.2142	.00001	1	300	0.00
Biology I - II 1985 - 1986 Freshmen (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2024	.2023	.00008	1	1,119	0.11
Sex & Ethnicity Interaction Test	2	3	.2023	.2022	.00008	1	1,120	0.11
Slope Differences for Sex	7	8	.1998	.1992	.00053	1	1,123	0.75
Intercept Differences for Sex	8	9	.1992	.1717	.02752	1	1,124	38.63 **
Slope Differences for Ethnicity	10	11	.1744	.1741	.00033	1	1,123	0.45
Intercept Differences for Ethnicity	11	12	.1741	.1717	.00235	1	1,124	3.19
Biology I - II 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2685	.2681	.00037	2	1,371	0.35
Sex & Ethnicity Interaction Test	2	3	.2681	.2597	.00840	2	1,373	7.88 **
Consistent Over or Under prediction of Subgroup	2	4	.2681	.2555	.01265	3	1,373	7.91 **
Slope Differences for Sex	2	5	.2681	.2574	.01068	1	1,373	20.04 **
Slope Differences for Ethnicity	2	6	.2681	.2661	.00200	2	1,373	1.88
Biology I - II 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2588	.2501	.00873	1	335	3.95
Intercept Differences for Sex	8	9	.2501	.2016	.04846	1	336	21.71 **

Table D-8. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Biology I - II 1985 - 1986 Sophomore (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2080	.2053	.00269	2	333	0.57
Intercept Differences for Ethnicity	11	12	.2053	.2016	.00371	2	335	0.78
Biology I - II 1984 - 1985 Junior (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2598	.2592	.00062	1	397	0.33
Sex & Ethnicity Interaction Test	2	3	.2592	.2588	.00035	1	398	0.19
Slope Differences for Sex	7	8	.2457	.2405	.00518	1	401	2.75
Intercept Differences for Sex	8	9	.2405	.2106	.02993	1	402	15.84 **
Slope Differences for Ethnicity	10	11	.2287	.2257	.00295	1	401	1.53
Intercept Differences for Ethnicity	11	12	.2257	.2106	.01510	1	402	7.84 *
Biology I - II 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.3812	.3600	.02126	1	147	5.05
Intercept Differences for Sex	8	9	.3600	.3283	.03171	1	148	7.33 *
Biology I - II 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.3575	.3548	.00269	1	195	0.82
Intercept Differences for Sex	8	9	.3548	.3271	.02772	1	196	8.42 *
Biology I - II 1984 - 1985 Senior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.3760	.3748	.00127	1	176	0.36
Intercept Differences for Ethnicity	11	12	.3748	.3396	.03518	1	177	9.96 *
Chemistry I - II 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2157	.2106	.00510	1	128	0.83
Intercept Differences for Sex	8	9	.2106	.1887	.02192	1	129	3.58
Chemistry I - II 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0961	.0830	.01309	1	168	2.43
Intercept Differences for Sex	8	9	.0830	.0590	.02402	1	169	4.43
Chemistry I - II 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1429	.1379	.00503	1	430	2.52
Intercept Differences for Sex	8	9	.1379	.0954	.04250	1	431	21.25 **
Chemistry I - II 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2226	.2191	.00344	1	426	1.89
Intercept Differences for Sex	8	9	.2191	.1741	.04502	1	427	24.62 **
Chemistry I - II 1984 - 1985 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2115	.2031	.00846	1	426	4.57
Intercept Differences for Ethnicity	11	12	.2031	.1741	.02897	1	427	15.52 **
Chemistry I - II 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1766	.1692	.00744	1	137	1.24
Intercept Differences for Sex	8	9	.1692	.1110	.05820	1	138	9.67 *

Table D-8. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Chemistry I - II 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1288	.1281	.00071	1	137	0.11
Intercept Differences for Ethnicity	11	12	.1281	.1110	.01710	1	138	2.71
Chemistry I - II 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2319	.2300	.00190	1	156	0.39
Intercept Differences for Sex	8	9	.2300	.2298	.00021	1	157	0.04
Chemistry I - II 1984 - 1985 Senior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2749	.2363	.03869	1	156	8.33 *
Physics I - II 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1447	.1341	.01062	1	232	2.88
Intercept Differences for Sex	8	9	.1341	.0964	.03770	1	233	10.14 *
Physics I - II 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2036	.2032	.00045	1	166	0.09
Intercept Differences for Sex	8	9	.2032	.1695	.03361	1	167	7.04 *
Government & Civics 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.3024	.2999	.00251	1	344	1.24
Intercept Differences for Sex	8	9	.2999	.2942	.00574	1	345	2.83
Government & Civics 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1734	.1571	.01629	1	155	3.05
Intercept Differences for Sex	8	9	.1571	.1267	.03040	1	156	5.63
Government & Civics 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1820	.1727	.00933	1	417	4.76
Intercept Differences for Sex	8	9	.1727	.1446	.02804	1	418	14.17 **
Government & Civics 1985 - 1986 Sophomore (Ethnicity = White & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1722	.1722	.00004	1	388	0.02
Intercept Differences for Ethnicity	11	12	.1722	.1569	.01524	1	389	7.16 *
Government & Civics 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2716	.2683	.00324	1	456	2.03
Intercept Differences for Sex	8	9	.2683	.2524	.01594	1	457	9.96 *
Government & Civics 1984 - 1985 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2559	.2551	.00074	1	456	0.45
Intercept Differences for Ethnicity	11	12	.2551	.2524	.00275	1	457	1.69
Government & Civics 1985 - 1986 Junior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2904	.2897	.00067	1	707	0.67
Sex & Ethnicity Interaction Test	2	3	.2897	.2894	.00030	1	708	0.30
Slope Differences for Sex	7	8	.2817	.2777	.00404	1	711	4.00
Intercept Differences for Sex	8	9	.2777	.2518	.02586	1	712	25.49 **
Slope Differences for Ethnicity	10	11	.2598	.2598	.00000	1	711	0.00
Intercept Differences for Ethnicity	11	12	.2598	.2518	.00791	1	712	7.61 *

Table D-8. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Government & Civics 1984 - 1985 Senior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2759	.2756	.00023	1	602	0.19
Sex & Ethnicity Interaction Test	2	3	.2756	.2756	.00004	1	603	0.03
Slope Differences for Sex	7	8	.2651	.2645	.00061	1	606	0.51
Intercept Differences for Sex	8	9	.2645	.2551	.00938	1	607	7.74 *
Slope Differences for Ethnicity	10	11	.2672	.2664	.00081	1	606	0.67
Intercept Differences for Ethnicity	11	12	.2664	.2551	.01129	1	607	9.34 *
History 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2959	.2946	.00130	2	1,319	1.21
Sex & Ethnicity Interaction Test	2	3	.2946	.2928	.00177	2	1,321	1.65
Slope Differences for Sex	7	8	.2877	.2875	.00021	1	1,327	0.38
Intercept Differences for Sex	8	9	.2875	.2579	.02956	1	1,328	55.09 **
Slope Differences for Ethnicity	10	11	.2672	.2613	.00590	2	1,325	5.33 *
Intercept Differences for Ethnicity	11	12	.2613	.2579	.00341	2	1,327	3.06
History 1985 - 1986 Freshmen (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2825	.2825	.00002	1	1,343	0.04
Sex & Ethnicity Interaction Test	2	3	.2825	.2822	.00027	1	1,344	0.51
Slope Differences for Sex	7	8	.2810	.2809	.00004	1	1,347	0.07
Intercept Differences for Sex	8	9	.2809	.2738	.00711	1	1,348	13.34 **
Slope Differences for Ethnicity	10	11	.2750	.2739	.00114	1	1,347	2.12
Intercept Differences for Ethnicity	11	12	.2739	.2738	.00007	1	1,348	0.13
History 1984 - 1985 Sophomore (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2883	.2873	.00105	1	1,430	2.11
Sex & Ethnicity Interaction Test	2	3	.2873	.2849	.00242	1	1,431	4.87
Slope Differences for Sex	7	8	.2841	.2840	.00008	1	1,434	0.16
Intercept Differences for Sex	8	9	.2840	.2676	.01635	1	1,435	32.77 **
Slope Differences for Ethnicity	10	11	.2685	.2685	.00002	1	1,434	0.04
Intercept Differences for Ethnicity	11	12	.2685	.2676	.00083	1	1,435	1.64
History 1985 - 1986 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2301	.2294	.00078	2	1,465	0.74
Sex & Ethnicity Interaction Test	2	3	.2294	.2235	.00586	2	1,467	5.58 *
Slope Differences for Sex	7	8	.2119	.2103	.00166	1	1,473	3.11
Intercept Differences for Sex	8	9	.2103	.1751	.03521	1	1,474	65.72 **
Slope Differences for Ethnicity	10	11	.1900	.1812	.00875	2	1,471	7.94 **
History 1984 - 1985 Junior (Ethnicity = Whit &, Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.3113	.3106	.00068	1	1,102	1.09
Sex & Ethnicity Interaction Test	2	3	.3106	.3098	.00081	1	1,103	1.29
Slope Differences for Sex	7	8	.3080	.3077	.00028	1	1,106	0.44
Intercept Differences for Sex	8	9	.3077	.2793	.02842	1	1,107	45.45 **
Slope Differences for Ethnicity	10	11	.2810	.2806	.00041	1	1,106	0.64
Intercept Differences for Ethnicity	11	12	.2806	.2793	.00125	1	1,107	1.93

Table D-8. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
History 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2495	.2364	.01311	1	428	7.47 *
History 1985 - 1986 Junior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2012	.2010	.00019	1	409	0.10
Intercept Differences for Ethnicity	11	12	.2010	.1985	.00251	1	410	1.29
History 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.3518	.3481	.00372	1	423	2.43
Intercept Differences for Sex	8	9	.3481	.3427	.00543	1	424	3.53
History 1984 - 1985 Senior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.3853	.3829	.00248	1	402	1.63
Intercept Differences for Ethnicity	11	12	.3829	.3604	.02251	1	403	14.70 **
Foreign Language 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2758	.2757	.00012	1	1,012	0.17
Intercept Differences for Sex	8	9	.2757	.2238	.05192	1	1,013	72.61 **
Foreign Language 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2533	.2490	.00431	2	1,010	2.91
Intercept Differences for Ethnicity	11	12	.2490	.2238	.02525	2	1,012	17.01 **
Foreign Language 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2079	.2052	.00272	1	797	2.74
Intercept Differences for Sex	8	9	.2052	.1600	.04519	1	798	45.37 **
Foreign Language 1985 - 1986 Freshmen (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1784	.1709	.00744	2	795	3.60
Intercept Differences for Ethnicity	11	12	.1709	.1600	.01090	2	797	5.24 *
Foreign Language 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2282	.2277	.00043	1	892	0.50
Intercept Differences for Sex	8	9	.2278	.1463	.08140	1	893	94.13 **
Foreign Language 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1649	.1617	.00328	2	890	1.75
Intercept Differences for Ethnicity	11	12	.1617	.1463	.01532	2	892	8.15 **
Foreign Language 1985 - 1986 Sophomore (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1828	.1805	.00229	1	604	1.70
Sex & Ethnicity Interaction Test	2	3	.1805	.1802	.00028	1	605	0.21
Slope Differences for Sex	7	8	.1626	.1610	.00153	1	608	1.11
Intercept Differences for Sex	8	9	.1610	.1018	.05922	1	609	42.99 **
Slope Differences for Ethnicity	10	11	.1221	.1205	.00165	1	608	1.14
Intercept Differences for Ethnicity	11	12	.1205	.1018	.01863	1	609	12.90 **

Table D-8. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Foreign Language 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2263	.2226	.00377	1	480	2.34
Intercept Differences for Sex	8	9	.2226	.1466	.07593	1	481	46.98 **
Foreign Language 1984 - 1985 Junior (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1723	.1707	.00165	2	478	0.48
Intercept Differences for Ethnicity	11	12	.1707	.1466	.02406	2	480	6.96 *
Foreign Language 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2040	.1888	.01523	1	247	4.73
Intercept Differences for Sex	8	9	.1888	.1429	.04591	1	248	14.03 **
Foreign Language 1985 - 1986 Junior (Ethnicity = White & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1218	.1042	.01755	1	205	4.10
Intercept Differences for Ethnicity	11	12	.1042	.0995	.00471	1	206	1.08
Foreign Language 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1809	.1778	.00319	1	224	0.87
Intercept Differences for Sex	8	9	.1778	.1615	.01628	1	225	4.45
Foreign Language 1984 - 1985 Senior (Ethnicity = White & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1158	.1120	.00375	1	185	0.78
Intercept Differences for Ethnicity	11	12	.1120	.1036	.00839	1	186	1.76
Secretary & Office Education 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1317	.1306	.00110	1	215	0.27
Intercept Differences for Ethnicity	11	12	.1306	.1306	.00002	1	216	0.00
Secretary & Office Education 1984 - 1985 Senior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1168	.1112	.00556	1	220	1.38
Intercept Differences for Ethnicity	11	12	.1112	.1060	.00519	1	221	1.29
Typing & Word Processing 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2441	.2441	.00005	1	507	0.03
Intercept Differences for Sex	8	9	.2441	.2345	.00959	1	508	6.45
Typing & Word Processing 1984-1985 Freshmen (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2381	.2361	.00208	2	505	0.69
Intercept Differences for Ethnicity	11	12	.2360	.2345	.00159	2	507	0.53
Typing & Word Processing 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1894	.1885	.00096	1	492	0.58
Intercept Differences for Sex	8	9	.1885	.1566	.03188	1	493	19.37 **
Typing & Word Processing 1985-1986 Freshmen (Ethnicity = White & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1522	.1510	.00120	1	445	0.63
Intercept Differences for Ethnicity	11	12	.1510	.1448	.00622	1	446	3.27

Table D-8. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Typing & Word Processing 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2160	.2150	.00107	1	631	0.86
Intercept Differences for Sex	8	9	.2150	.1760	.03900	1	632	31.40 **
Typing & Word Processing 1984-1985 Sophomore (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1794	.1786	.00081	2	629	0.31
Intercept Differences for Ethnicity	11	12	.1786	.1760	.00258	2	631	0.99
Typing & Word Processing 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1894	.1812	.00818	1	405	4.09
Intercept Differences for Sex	8	9	.1812	.1698	.01138	1	406	5.64
Typing & Word Processing 1985-1986 Sophomore (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1660	.1649	.00111	1	374	0.50
Intercept Differences for Ethnicity	11	12	.1649	.1637	.00119	1	375	0.53
Typing & Word Processing 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2250	.2242	.00080	1	391	0.40
Intercept Differences for Sex	8	9	.2242	.1612	.06300	1	392	31.83 **
Typing & Word Processing 1984 - 1985 Junior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1698	.1695	.00028	1	359	0.12
Intercept Differences for Ethnicity	11	12	.1695	.1634	.00614	1	360	2.66
Typing & Word Processing 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1521	.1502	.00186	1	221	0.49
Intercept Differences for Sex	8	9	.1502	.1106	.03962	1	222	10.35 *
Typing & Word Processing 1985-1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1312	.1236	.00763	1	221	1.94
Intercept Differences for Ethnicity	11	12	.1236	.1106	.01299	1	222	3.29
Typing & Word Processing 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2231	.2195	.00361	1	216	1.00
Intercept Differences for Sex	8	9	.2195	.1901	.02933	1	217	8.16 *
Accounting/Bookkeeping 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2241	.2223	.00177	1	311	0.71
Intercept Differences for Sex	8	9	.2223	.1731	.04928	1	312	19.77 **
Accounting/Bookkeeping 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.3027	.2982	.00443	1	239	1.52
Intercept Differences for Sex	8	9	.2982	.2116	.08661	1	240	29.62 **
Accounting/Bookkeeping 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1369	.1311	.00579	1	185	1.24
Intercept Differences for Sex	8	9	.1311	.0967	.03442	1	186	7.37 *

Table D-8. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Accounting/Bookkeeping 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1951	.1907	.00436	1	247	1.34
Intercept Differences for Sex	8	9	.1907	.1570	.03370	1	248	10.33 *
Home Economics 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2346	.2338	.00083	1	547	0.60
Intercept Differences for Sex	8	9	.2338	.1916	.04222	1	548	30.19 **
Home Economics 1984-1985 Freshmen (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2506	.2487	.00191	1	519	1.32
Intercept Differences for Ethnicity	11	12	.2487	.1794	.06932	1	520	47.98**
Home Economics 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1833	.1825	.00079	1	312	0.30
Intercept Differences for Sex	8	9	.1825	.1241	.05845	1	313	22.38 **
Home Economics 1985-1986 Freshmen (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1279	.1277	.00025	1	312	0.09
Intercept Differences for Ethnicity	11	12	.1277	.1241	.00359	1	313	1.29
Home Economics 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1977	.1977	.00002	1	321	0.01
Intercept Differences for Sex	8	9	.1977	.1416	.05608	1	322	22.51 **
Home Economics 1984-1985 Sophomore (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1836	.1727	.01090	1	321	4.29
Intercept Differences for Ethnicity	11	12	.1727	.1416	.03108	1	322	12.10**
Home Economics 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1937	.1936	.00016	1	394	0.08
Intercept Differences for Sex	8	9	.1936	.1354	.05822	1	395	28.52 **
Home Economics 1985-1986 Sophomore (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1366	.1358	.00084	1	394	0.38
Intercept Differences for Ethnicity	11	12	.1358	.1354	.00042	1	395	0.10
Home Economics 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1723	.1723	.00000	1	279	0.00
Intercept Differences for Sex	8	9	.1723	.1454	.02693	1	280	9.11 *
Home Economics 1984-1985 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1475	.1475	.00001	1	279	0.00
Intercept Differences for Ethnicity	11	12	.1475	.1454	.00215	1	280	0.71
Home Economics 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2057	.2050	.00074	1	358	0.33
Intercept Differences for Sex	8	9	.2050	.0972	.10775	1	359	48.66 **

Table D-8. (Concluded)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Home Economics 1985-1986 Junior (Ethnicity = White & Junior) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1002	.0988	.00144	1	358	0.57
Intercept Differences for Ethnicity	11	12	.0988	.0972	.00157	1	359	0.63
Home Economics 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1811	.1795	.00160	1	318	0.62
Intercept Differences for Sex	8	9	.1795	.1402	.03929	1	319	15.28 **
Home Economics 1984-1985 Senior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1504	.1432	.00714	1	318	2.67
Intercept Differences for Ethnicity	11	12	.1432	.1402	.00300	1	319	1.12
Computer Programming 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2730	.2727	.00027	1	227	0.08
Intercept Differences for Sex	8	9	.2727	.2025	.07023	1	228	22.02 **
Computer Programming 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2367	.2349	.00178	1	240	0.56
Intercept Differences for Sex	8	9	.2349	.2173	.01760	1	241	5.54
Computer Programming 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.3421	.3414	.00069	1	157	0.17
Intercept Differences for Sex	8	9	.3414	.2475	.09382	1	158	22.51 **
Computer Programming 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1947	.1939	.00082	1	152	0.16
Intercept Differences for Sex	8	9	.1939	.1924	.00151	1	153	0.29

* $p < .01$.

** $p < .001$.

Table D-9. F-Tests of Significance for Perceptual Speed Composite

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
English I - IV 1984 - 1985 Freshmen (Ethnicity - White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1572	.1570	.00026	2	2,422	0.37
Sex & Ethnicity Interaction Test	2	3	.1570	.1485	.00847	2	2,424	12.18 **
Consistent Over or Under prediction of Subgroup	2	4	.1570	.1428	.01418	3	2,424	13.59 **
Slope Differences for Sex	2	5	.1570	.1570	.00000	1	2,424	0.01
English I - IV 1985 - 1986 Freshmen (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1358	.1358	.00003	2	1,989	0.03
Sex & Ethnicity Interaction Test	2	3	.1358	.1293	.00645	2	1,991	7.43 **
Consistent Over or Under prediction of Subgroup	2	4	.1358	.1220	.01384	3	1,991	10.63 **
Slope Differences for Sex	2	5	.1358	.1358	.00001	1	1,991	0.03
English I - IV 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1725	.1712	.00136	2	2,296	1.89
Sex & Ethnicity Interaction Test	2	3	.1712	.1699	.00127	2	2,298	1.76
Slope Differences for Sex	7	8	.1283	.1282	.00003	1	2,304	0.08
Intercept Differences for Sex	8	9	.1282	.1131	.01513	1	2,305	40.01 **
Slope Differences for Ethnicity	10	11	.1522	.1507	.00147	2	2,302	1.99
Intercept Differences for Ethnicity	11	12	.1507	.1131	.03762	2	2,304	51.02 **
English I - IV 1985 - 1986 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1339	.1325	.00135	2	1,942	1.51
Sex & Ethnicity Interaction Test	2	3	.1325	.1320	.00058	2	1,944	0.65
Slope Differences for Sex	7	8	.0707	.0706	.00005	1	1,950	0.10
Intercept Differences for Sex	8	9	.0706	.0429	.02776	1	1,951	58.27 **
Slope Differences for Ethnicity	10	11	.1020	.0962	.00575	2	1,948	6.24 *
Intercept Differences for Ethnicity	11	12	.0962	.0429	.05333	2	1,950	57.53 **
English I - IV 1984 - 1985 Junior (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1344	.1338	.00062	2	1,721	0.61
Sex & Ethnicity Interaction Test	2	3	.1338	.1336	.00011	2	1,723	0.11
Slope Differences for Sex	7	8	.0972	.0972	.00004	1	1,729	0.08
Intercept Differences for Sex	8	9	.0972	.0569	.04025	1	1,730	77.13 **
Slope Differences for Ethnicity	10	11	.0883	.0836	.00473	2	1,727	4.46
Intercept Differences for Ethnicity	11	12	.0836	.0569	.02669	2	1,729	25.18 **
English I - IV 1985 - 1986 Junior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1280	.1271	.00091	1	1,258	1.31
Sex & Ethnicity Interaction Test	2	3	.1271	.1265	.00060	1	1,259	0.86
Slope Differences for Sex	7	8	.1045	.1036	.00092	1	1,262	1.30
Intercept Differences for Sex	8	9	.1036	.0588	.04472	1	1,263	63.00 **
Slope Differences for Ethnicity	10	11	.0774	.0773	.00007	1	1,262	0.10
Intercept Differences for Ethnicity	11	12	.0773	.0588	.01848	1	1,263	25.30 **

Table D-9. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df1	df2	F
English I - IV 1984 - 1985 Senior (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.0942	.0919	.00226	2	1,275	1.59
Sex & Ethnicity Interaction Test	2	3	.0919	.0916	.00034	2	1,277	0.24
Slope Differences for Sex	7	8	.0578	.0578	.00000	1	1,283	0.00
Intercept Differences for Sex	8	9	.0578	.0442	.01358	1	1,284	18.51 **
Slope Differences for Ethnicity	10	11	.0725	.0693	.00319	2	1,281	2.20
Intercept Differences for Ethnicity	11	12	.0693	.0442	.02509	2	1,283	17.30 **
General Math 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.0925	.0911	.00143	2	1,167	0.92
Sex & Ethnicity Interaction Test	2	3	.0911	.0881	.00296	2	1,169	1.90
Slope Differences for Sex	7	8	.0736	.0728	.00080	1	1,175	1.01
Intercept Differences for Sex	8	9	.0728	.0724	.00033	1	1,176	0.42
Slope Differences for Ethnicity	10	11	.0873	.0850	.00223	2	1,173	1.43
Intercept Differences for Ethnicity	11	12	.0850	.0724	.01259	2	1,175	8.08 **
General Math 1985 - 1986 Freshmen (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.0424	.0423	.00019	1	549	0.11
Sex & Ethnicity Interaction Test	2	3	.0423	.0372	.00501	1	550	2.88
Slope Differences for Sex	7	8	.0340	.0328	.00127	1	553	0.73
Intercept Differences for Sex	8	9	.0328	.0322	.00059	1	554	0.34
Slope Differences for Ethnicity	10	11	.0357	.0342	.00151	1	553	0.87
Intercept Differences for Ethnicity	11	12	.0342	.0322	.00199	1	554	1.14
General Math 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1093	.1014	.00797	2	736	3.29
Sex & Ethnicity Interaction Test	2	3	.1014	.0979	.00346	2	738	1.42
Slope Differences for Sex	7	8	.0946	.0944	.00013	1	744	0.10
Intercept Differences for Sex	8	9	.0944	.0934	.00100	1	745	0.82
Slope Differences for Ethnicity	10	11	.0968	.0963	.00045	2	742	0.19
Intercept Differences for Ethnicity	11	12	.0963	.0934	.00288	2	744	1.18
General Math 1985 - 1986 Sophomore (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1113	.1113	.00002	1	305	0.01
Sex & Ethnicity Interaction Test	2	3	.1113	.1049	.00642	1	306	2.21
Slope Differences for Sex	7	8	.0610	.0598	.00113	1	309	0.37
Intercept Differences for Sex	8	9	.0598	.0403	.01955	1	310	6.45
Slope Differences for Ethnicity	10	11	.0857	.0826	.00313	1	309	1.06
Intercept Differences for Ethnicity	11	12	.0826	.0403	.04228	1	310	14.29 **
General Math 1984 - 1985 Junior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.0712	.0681	.00307	1	266	0.88
Sex & Ethnicity Interaction Test	2	3	.0681	.0676	.00052	1	267	0.15
Slope Differences for Sex	7	8	.0447	.0445	.00018	1	270	0.05
Intercept Differences for Sex	8	9	.0445	.0284	.01611	1	271	4.57
Slope Differences for Ethnicity	10	11	.0495	.0481	.00140	1	270	0.40
Intercept Differences for Ethnicity	11	12	.0481	.0284	.01971	1	271	5.61

Table D-9. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
General Math 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0549	.0541	.00084	1	222	0.20
Intercept Differences for Sex	8	9	.0541	.0423	.01173	1	223	2.77
General Math 1985 - 1986 Junior (Ethnicity = White & Black (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1218	.1112	.01058	1	195	2.35
Intercept Differences for Ethnicity	11	12	.1112	.0686	.04257	1	196	9.39 *
General Math 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0302	.0297	.00055	1	230	0.13
Intercept Differences for Sex	8	9	.0297	.0289	.00076	1	231	0.18
General Math 1984 - 1985 Senior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1048	.0936	.01117	1	203	2.53
Intercept Differences for Ethnicity	11	12	.0936	.0273	.06633	1	204	14.93 **
Algebra 1984 - 1985 Freshmen (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.0899	.0899	.00004	1	1,180	0.05
Sex & Ethnicity Interaction Test	2	3	.0899	.0896	.00029	1	1,181	0.38
Slope Differences for Sex	7	8	.0810	.0780	.00304	1	1,184	3.91
Intercept Differences for Sex	8	9	.0780	.0665	.01150	1	1,185	14.78 **
Slope Differences for Ethnicity	10	11	.0715	.0714	.00012	1	1,184	0.15
Intercept Differences for Ethnicity	11	12	.0714	.0665	.00486	1	1,185	6.20
Algebra 1985 - 1986 Freshmen (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1199	.1197	.00024	1	708	0.20
Sex & Ethnicity Interaction Test	2	3	.1197	.1171	.00253	1	709	2.04
Slope Differences for Sex	7	8	.0614	.0597	.00165	1	712	1.25
Intercept Differences for Sex	8	9	.0597	.0475	.01222	1	713	9.26 *
Slope Differences for Ethnicity	10	11	.1020	.0961	.00590	1	712	4.68
Intercept Differences for Ethnicity	11	12	.0961	.0475	.04357	1	713	38.31 **
Algebra 1984 - 1985 Sophomore (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.0799	.0799	.00007	1	871	0.06
Sex & Ethnicity Interaction Test	2	3	.0799	.0762	.00364	1	872	3.45
Slope Differences for Sex	7	8	.0701	.0665	.00359	1	875	3.37
Intercept Differences for Sex	8	9	.0665	.0620	.00451	1	876	4.23
Slope Differences for Ethnicity	10	11	.0676	.0669	.00067	1	875	0.62
Intercept Differences for Ethnicity	11	12	.0669	.0620	.00488	1	876	4.58
Algebra 1985 - 1986 Sophomore (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.0695	.0690	.00058	1	617	0.79
Sex & Ethnicity Interaction Test	2	3	.0690	.0664	.00255	1	618	1.69
Slope Differences for Sex	7	8	.0262	.0254	.00083	1	621	0.53
Intercept Differences for Sex	8	9	.0254	.0234	.00206	1	622	1.31
Slope Differences for Ethnicity	10	11	.0602	.0601	.00018	1	621	0.12
Intercept Differences for Ethnicity	11	12	.0600	.0234	.03669	1	622	24.28 **

Table D-9. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Algebra 1984 - 1985 Junior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1250	.1241	.00097	1	489	0.54
Sex & Ethnicity Interaction Test	2	3	.1241	.1226	.00153	1	490	0.86
Slope Differences for Sex	7	8	.0956	.0956	.00002	1	493	0.01
Intercept Differences for Sex	8	9	.0956	.0872	.00840	1	494	4.59
Slope Differences for Ethnicity	10	11	.1132	.1011	.01204	1	493	6.69
Intercept Differences for Ethnicity	11	12	.1011	.0872	.01391	1	494	7.64 *
Algebra 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0346	.0336	.00096	1	273	0.27
Intercept Differences for Sex	8	9	.0336	.0336	.00002	1	274	0.01
Algebra 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1035	.0818	.02173	1	273	6.62
Intercept Differences for Ethnicity	11	12	.0818	.0336	.04821	1	274	14.39 **
Geometry 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0478	.0463	.00144	1	511	0.77
Intercept Differences for Sex	8	9	.0463	.0434	.00295	1	512	1.58
Geometry 1985 - 1986 Freshmen (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1160	.0949	.02115	2	509	6.09 *
Geometry 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0167	.0098	.00688	1	561	3.93
Intercept Differences for Sex	8	9	.0098	.0097	.00012	1	562	0.07
Geometry 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0361	.0333	.00280	2	559	0.81
Intercept Differences for Ethnicity	11	12	.0333	.0097	.02363	2	561	6.86 *
General Science 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1430	.1418	.00121	2	1,956	1.38
Sex & Ethnicity Interaction Test	2	3	.1418	.1249	.01689	2	1,958	19.27 **
Consistent Over or Under prediction of Subgroup	2	4	.1418	.1279	.01394	3	1,958	10.60 **
Slope Differences for Sex	2	5	.1418	.1380	.00380	1	1,958	8.68 *
General Science 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0586	.0562	.00241	1	274	0.70
Intercept Differences for Sex	8	9	.0562	.0554	.00077	1	275	0.23
General Science 1985 - 1986 Freshmen (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0814	.0653	.01603	1	240	4.19
Intercept Differences for Ethnicity	11	12	0653	.0541	.01123	1	241	2.89

Table D-9. (Continued)

Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
General Science 1984 - 1985 Sophomore (Ethnicity = White & Nonwhite)								
[illegible]y Interaction Test (ASVAB*sex*ethnicity)	1	2	.1870	.1844	.00261	1	341	1.10
[illegible] & Ethnicity interaction Test	2	3	.1844	.1707	.01374	1	342	5.76
[illegible]ope Differences for Sex	7	8	.1706	.1673	.00332	1	345	1.38
[illegible]ercept Differences for Sex	8	9	.1673	.1628	.00444	1	346	1.85
[illegible]ope Differences for Ethnicity	10	11	.1629	.1628	.00005	1	345	0.02
[illegible]ercept Differences for Ethnicity	11	12	.1628	.1628	.00002	1	346	0.01
Ge[illegible] Science 1985 - 1986 Sophomore (Ethnicity not tested)								
[illegible]ope Differences for S[illegible]	7	8	.0610	.0610	.00003	1	183	0.01
[illegible]tercept Differences for Sex	8	9	.0610	.0486	.01245	1	184	2.44
General Science 1985 - 1986 Sophomore (Ethnicity = White & Black) (Sex not tested)								
[illegible]ope Differences for Ethnicity	10	11	.1869	.1709	.01604	1	158	3.12
[illegible]ercept Differences for Ethnicity	11	12	.1708	.0689	.10197	1	159	19.55 **
General Science 1984 - 1985 Junior (Ethnicity not tested)								
[illegible]ope Differences for Sex	7	8	.0467	.0354	.01136	1	174	2.08
[illegible]tercept Differences for Sex	8	9	.0354	.0247	.01070	1	175	1.94
General Science 1984 - 1985 Junior (Ethnicity = White & Black) (Sex not tested)								
[illegible] Differences for Ethnicity	10	11	.1432	.1432	.00000	1	149	0.00
[illegible]tercept Differences for Ethnicity	11	12	.1432	.0244	.11872	1	150	20.78 **
General Science 1985 - 1986 Junior (Ethnicity not tested)								
[illegible]ope Differences for Sex	7	8	.0790	.0574	.02143	1	258	6.06
[illegible]tercept Differences for Sex	8	9	.0574	.0570	.00037	1	259	0.10
General Science 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
[illegible]ope Differences for Ethnicity	10	1[illegible]	.1338	.0998	.03400	1	25[illegible]	10.13 *
Biology I - II 198[illegible] - 1985 Freshmen (Ethnicity not tested)								
[illegible]ope Differences for Sex	7	8	.0815	.0798	.00170	1	299	0.55
[illegible]tercept Differences for Sex	8	9	.0799	.0776	.00227	1	300	0.74
Biology I - II 198[illegible] 1985 Freshmen (Ethnicity = White & Nonwhite) (Sex not tested)								
[illegible]e Differences for Ethnicity	10	11	.1035	.1035	.00001	1	299	0.00
[illegible]tercept Differences for Ethnicity	11	12	.1035	.0776	.02591	1	300	8.67 *
Biology I - II 1985 [illegible] 1986 Freshmen (Ethnicity = White & Black)								
[illegible] Test (ASVAB*sex*ethnicity)	1	2	.0812	.0803	.00096	1	1,119	1.17
[illegible] Ethnicity Interaction Test	2	3	[illegible]	.0791	.00120	1	1,120	1.46
[illegible] Differences for Sex	7	8	.0541	.0487	.00534	1	1,125	6.34
[illegible]tercept Differences for Sex	8	9	.0487	[illegible]418	.00692	1	1,124	8.10 *
[illegible] Differences for Ethnicity	10	11	[illegible]78	[illegible]663	.00749	1	1,123	9.02 *
[illegible]tercept Differences for Ethnicity	[illegible]	12	.0603	.0418	.01853	1	1,124	22.16 **

Table D-9. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
General Science 1984 - 1985 Sophomore (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1870	.1844	.00261	1	341	1.10
Sex & Ethnicity Interaction Test	2	3	.1844	.1707	.01374	1	342	5.76
Slope Differences for Sex	7	8	.1706	.1673	.00332	1	345	1.38
Intercept Differences for Sex	8	9	.1673	.1628	.00444	1	346	1.85
Slope Differences for Ethnicity	10	11	.1629	.1628	.00005	1	345	0.02
Intercept Differences for Ethnicity	11	12	.1628	.1628	.00002	1	346	0.01
General Science 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0610	.0610	.00003	1	183	0.01
Intercept Differences for Sex	8	9	.0610	.0486	.01245	1	184	2.44
General Science 1985 - 1986 Sophomore (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1869	.1709	.01604	1	158	3.12
Intercept Differences for Ethnicity	11	12	.1708	.0689	.10197	1	159	19.55
General Science 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0467	.0354	.01138	1	174	2.08
Intercept Differences for Sex	8	9	.0354	.0247	.01070	1	175	1.94
General Science 1984 - 1985 Junior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1432	.1432	.00000	1	149	0.00
Intercept Differences for Ethnicity	11	12	.1432	.0244	.11872	1	150	20.78 *
General Science 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0790	.0574	.02163	1	258	6.06
Intercept Differences for Sex	8	9	.0574	.0570	.00037	1	259	0.10
General Science 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1338	.0998	.03400	1	258	10.13 *
Biology I - II 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0815	.0798	.00170	1	299	0.55
Intercept Differences for Sex	8	9	.0799	.0776	.00227	1	300	0.74
Biology I - II 1984 - 1985 Freshmen (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1035	.1035	.00001	1	299	0.00
Intercept Differences for Ethnicity	11	12	.1035	.0776	.02591	1	300	8.67 *
Biology I - II 1985 - 1986 Freshmen (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.0812	.0803	.00096	1	1,119	1.17
Sex & Ethnicity Interaction Test	2	3	.0803	.0791	.00120	1	1,120	1.46
Slope Differences for Sex	7	8	.0541	.0487	.00534	1	1,123	6.34
Intercept Differences for Sex	8	9	.0487	.0418	.00692	1	1,124	8.18 *
Slope Differences for Ethnicity	10	11	.0678	.0603	.00749	1	1,123	9.02 *
Intercept Differences for Ethnicity	11	12	.0603	.0418	.01853	1	1,124	22.16 **

Table D-9. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Biology I - II 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.0975	.0971	.00040	2	1,371	0.30
Sex & Ethnicity Interaction Test	2	3	.0971	.0926	.00457	2	1,373	3.47
Slope Differences for Sex	7	8	.0789	.0786	.00026	1	1,379	0.38
Intercept Differences for Sex	8	9	.0786	.0778	.00085	1	1,380	1.28
Slope Differences for Ethnicity	10	11	.0914	.0892	.00215	2	1,377	1.63
Intercept Differences for Ethnicity	11	12	.0892	.0778	.01148	2	1,379	8.69 **
Biology I - II 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1013	.1011	.00026	1	335	0.10
Intercept Differences for Sex	8	9	.1011	.0776	.02346	1	336	8.77 *
Biology I - II 1985 - 1986 Sophomore (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1141	.0930	.02101	2	333	3.95
Intercept Differences for Ethnicity	11	12	.0930	.0776	.01541	2	335	2.85
Biology I - II 1984 - 1985 Junior (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1384	.1384	.00001	1	397	0.00
Sex & Ethnicity Interaction Test	2	3	.1384	.1208	.01757	1	398	8.12 *
Slope Differences for Sex	7	8	.0680	.0533	.01464	1	401	6.30
Intercept Differences for Sex	8	9	.0533	.0495	.00383	1	402	1.62
Slope Differences for Ethnicity	10	11	.1056	.0821	.02346	1	401	10.52 *
Intercept Differences for Ethnicity	11	12	.0821	.0495	.03262	1	402	14.29 **
Biology I - II 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1645	.1604	.00404	1	147	0.71
Intercept Differences for Sex	8	9	.1604	.1374	.02299	1	148	4.05
Biology I - II 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0698	.0695	.00022	1	195	0.05
Intercept Differences for Sex	8	9	.0695	.0540	.01550	1	196	3.26
Biology I - II 1984 - 1985 Senior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2968	.2966	.00012	1	176	0.03
Intercept Differences for Ethnicity	11	12	.2966	.0681	.22853	1	177	57.51 **
Chemistry I - II 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1104	.1074	.00294	1	128	0.42
Intercept Differences for Sex	8	9	.1074	.1026	.00483	1	129	0.70
Chemistry I - II 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0410	.0386	.00234	1	430	1.05
Intercept Differences for Sex	8	9	.0386	.0153	.02334	1	431	10.46 *

Table D-9. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Chemistry I - II 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0328	.0328	.00000	1	426	0.00
Intercept Differences for Sex	8	9	.0328	.0185	.01429	1	427	6.31
Chemistry I - II 1984 - 1985 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0259	.0224	.00353	1	426	1.54
Intercept Differences for Ethnicity	11	12	.0224	.0185	.00389	1	427	1.70
Physics I - II 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0829	.0618	.02104	1	232	5.32
Intercept Differences for Sex	8	9	.0618	.0568	.00503	1	233	1.25
Government & Civics 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1225	.1158	.00669	1	344	2.62
Intercept Differences for Sex	8	9	.1158	.1157	.00011	1	345	0.04
Government & Civics 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0997	.0996	.00004	1	155	0.01
Intercept Differences for Sex	8	9	.0996	.0918	.00778	1	156	1.35
Government & Civics 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1076	.1062	.00140	1	417	0.65
Intercept Differences for Sex	8	9	.1062	.1043	.00192	1	418	0.90
Government & Civics 1985 - 1986 Sophomore (Ethnicity = White & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1655	.1652	.00026	1	388	0.12
Intercept Differences for Ethnicity	11	12	.1652	.1245	.04072	1	389	18.97 **
Government & Civics 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0607	.0563	.00439	1	456	2.13
Intercept Differences for Sex	8	9	.0563	.0523	.00399	1	457	1.93
Government & Civics 1984 - 1985 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1085	.1032	.00529	1	456	2.70
Intercept Differences for Ethnicity	11	12	.1032	.0523	.05086	1	457	25.92 **
Government & Civics 1985 - 1986 Junior (Ethnicity = White / Black)								
3-way Interaction Test (AS/AB*sex*ethnicity)	1	2	.1096	.1063	.00336	1	707	2.67
Sex & Ethnicity Interaction Test	2	3	.1063	.1062	.00009	1	708	0.07
Slope Differences for Sex	7	8	.0665	.0597	.00679	1	711	5.17
Intercept Differences for Sex	8	9	.0597	.0537	.00602	1	712	4.56
Slope Differences for Ethnicity	10	11	.0953	.0768	.01850	1	711	14.54 **

Table D-9. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Government & Civics 1984 - 1985 Senior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.0965	.0962	.00027	1	602	0.18
Sex & Ethnicity Interaction Test	2	3	.0962	.0961	.00004	1	603	0.03
Slope Differences for Sex	7	8	.0822	.0816	.00069	1	606	0.45
Intercept Differences for Sex	8	9	.0816	.0814	.00015	1	607	0.10
Slope Differences for Ethnicity	10	11	.0945	.0921	.00245	1	606	1.64
Intercept Differences for Ethnicity	11	12	.0921	.0814	.01067	1	607	7.13 *
History 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1371	.1363	.00083	2	1,319	0.63
Sex & Ethnicity Interaction Test	2	3	.1363	.1261	.01018	2	1,321	7.78 **
ASVAB*Ethnicity ASVAB*Sex Interaction Test	2	4	.1363	.0784	.05791	6	1,321	14.76 **
Slope Differences for Sex	2	5	.1363	.0654	.07087	5	1,321	21.68 **
Slope Differences for Ethnicity	2	6	.1363	.0255	.11076	6	1,321	28.23 **
History 1985 - 1986 Freshmen (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1273	.1273	.00006	1	1,343	0.10
Sex & Ethnicity Interaction Test	2	3	.1273	.1273	.00000	1	1,344	0.01
Slope Differences for Sex	7	8	.1111	.1105	.00055	1	1,347	0.84
Intercept Differences for Sex	8	9	.1105	.1105	.00000	1	1,348	0.00
Slope Differences for Ethnicity	10	11	.1264	.1236	.00279	1	1,347	4.30
Intercept Differences for Ethnicity	11	12	.1236	.1105	.01314	1	1,348	20.21 **
History 1984 - 1985 Sophomore (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1360	.1360	.00000	1	1,430	0.00
Sex & Ethnicity Interaction Test	2	3	.1360	.1350	.00098	1	1,431	1.62
Slope Differences for Sex	7	8	.1144	.1109	.00355	1	1,434	5.75
Intercept Differences for Sex	8	9	.1109	.1107	.00016	1	1,435	0.25
Slope Differences for Ethnicity	10	11	.1301	.1299	.00018	1	1,434	0.30
Intercept Differences for Ethnicity	11	12	.1299	.1107	.01915	1	1,435	31.57 **
History 1985 - 1986 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1353	.1348	.00046	2	1,465	0.39
Sex & Ethnicity Interaction Test	2	3	.1348	.1259	.00894	2	1,467	7.58 **
Consistent Over or Under prediction of Subgroup	2	4	.1348	.1142	.02066	3	1,467	11.68 **
Slope Differences for Sex	2	5	.1348	.1337	.00109	1	1,467	1.85
History 1984 - 1985 Junior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1594	.1584	.00104	1	1,102	1.37
Sex & Ethnicity Interaction Test	2	3	.1584	.1568	.00155	1	1,103	2.03
Slope Differences for Sex	7	8	.0945	.0943	.00015	1	1,106	0.18
Intercept Differences for Sex	8	9	.0943	.0881	.00626	1	1,107	7.65 *
Slope Differences for Ethnicity	10	11	.1493	.1431	.00617	1	1,106	8.03 *
Intercept Differences for Ethnicity	11	12	.1431	.0881	.05507	1	1,107	71.15 **

Table D-9. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
History 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1030	.0998	.00321	1	428	1.53
Intercept Differences for Sex	8	9	.0998	.0850	.01474	1	429	7.03 *
History 1985 - 1986 Junior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1281	.1215	.00658	1	409	3.09
Intercept Differences for Ethnicity	11	12	.1215	.0865	.03495	1	410	16.31 **
History 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1313	.1311	.00026	1	423	0.13
Intercept Differences for Sex	8	9	.1311	.1310	.00001	1	424	0.00
History 1984 - 1985 Senior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2198	.2164	334	1	402	1.72
Intercept Differences for Ethnicity	11	12	.2164	.1428	[illegible]	1	403	37.84 **
Foreign Language 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1232	.1227	.00051	1	1,012	0.59
Intercept Differences for Sex	8	9	.1227	.1090	.01377	1	1,013	15.90 **
Foreign Language 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1154	.1120	.00331	2	1,010	1.89
Intercept Differences for Ethnicity	11	12	.1120	.1090	.00309	2	1,012	1.76
Foreign Language 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0806	.0791	.00145	1	797	1.26
Intercept Differences for Sex	8	9	.0791	.0624	.01673	1	798	14.50 **
Foreign Language 1985 - 1986 Freshmen (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0686	.0674	.00119	2	795	0.51
Intercept Differences for Ethnicity	11	12	.0674	.0624	.00506	2	797	2.16
Foreign Language 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1076	.1023	.00531	1	892	5.31
Intercept Differences for Sex	8	9	.1023	.0748	.02756	1	893	27.41 **
Foreign Language 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0760	.0751	.00091	2	890	0.44
Intercept Differences for Ethnicity	11	12	.0751	.0747	.00039	2	892	0.19
Foreign Language 1985 - 1986 Sophomore (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.0680	.0677	.00028	1	604	0.18
Sex & Ethnicity Interaction Test	2	3	.0677	.0677	.00003	1	605	0.02
Slope Differences for Sex	7	8	.0613	.0592	.00202	1	608	1.31
Intercept Differences for Sex	8	9	.0592	.0412	.01804	1	609	11.68 **
Slope Differences for Ethnicity	10	11	.0462	.0433	.00295	1	608	1.88
Intercept Differences for Ethnicity	11	12	.0433	.0412	.00209	1	609	1.33

Table D-9. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Foreign Language 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1129	.1102	.00274	1	480	1.49
Intercept Differences for Sex	8	9	.1102	.0705	.03961	1	481	21.41 **
Foreign Language 1984 - 1985 Junior (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1000	.0780	.02197	2	478	5.83 *
Foreign Language 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0698	.0651	.00473	1	247	1.26
Intercept Differences for Sex	8	9	.0651	.0610	.00410	1	248	1.09
Foreign Language 1985 - 1986 Junior (Ethnicity = White & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0807	.0565	.02420	1	205	5.40
Intercept Differences for Ethnicity	11	12	.0565	.0510	.00543	1	206	1.19
Secretary & Office Education 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0676	.0673	.00033	1	215	0.08
Intercept Differences for Ethnicity	11	12	.0673	.0610	.00625	1	216	1.45
Secretary & Office Education 1984 - 1985 Senior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0363	.0236	.01273	1	220	2.91
Intercept Differences for Ethnicity	11	12	.0236	.0201	.00351	1	221	0.80
Typing & Word Processing 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1247	.1159	.00884	1	507	5.12
Intercept Differences for Sex	8	9	.1159	.1159	.00001	1	508	0.00
Typing & Word Processing 1984-1985 Freshmen (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1601	.1572	.00296	2	505	0.89
Intercept Differences for Ethnicity	11	12	.1572	.1159	.04130	2	507	12.42**
Typing & Word Processing 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0721	.0677	.00441	1	492	2.34
Intercept Differences for Sex	8	9	.0677	.0655	.00218	1	493	1.15
Typing & Word Processing 1985-1986 Freshmen (Ethnicity = White & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0979	.0913	.00662	1	445	3.27
Intercept Differences for Ethnicity	11	12	.0913	.0888	.00251	1	446	1.23
Typing & Word Processing 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1002	.0890	.01047	1	631	7.34 *
Typing & Word Processing 1984-1985 Sophomore (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0966	.0955	.00111	2	629	0.39
Intercept Differences for Ethnicity	11	12	.0955	.0846	.01087	2	631	3.79

Table D-9. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Typing & Word Processing 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1046	.1022	.00249	1	391	1.09
Intercept Differences for Sex	8	9	.1021	.0870	.01515	1	392	6.62
Typing & Word Processing 1984 - 1985 Junior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0976	.0944	.00317	1	359	1.26
Intercept Differences for Ethnicity	11	12	.0944	.0897	.00474	1	360	1.88
Typing & Word Processing 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0526	.0441	.00850	1	221	1.98
Intercept Differences for Sex	8	9	.0441	.0411	.00302	1	222	0.70
Typing & Word Processing 1985-1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1069	.0964	.01057	1	221	2.61
Intercept Differences for Ethnicity	11	12	.0964	.0411	.05531	1	222	13.59**
Typing & Word Processing 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0865	.0835	.00306	1	216	0.72
Intercept Differences for Sex	8	9	.0835	.0806	.00288	1	217	0.68
Accounting/Bookkeeping 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0425	.0414	.00115	1	311	0.37
Intercept Differences for Sex	8	9	.0414	.0239	.01748	1	312	5.69
Accounting/Bookkeeping 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1104	.1102	.00023	1	239	0.06
Intercept Differences for Sex	8	9	.1102	.0827	.02746	1	240	7.41 *
Accounting/Bookkeeping 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0704	[illegible]	.00141	1	185	0.28
Intercept Differences for Sex	8	9	.0690	.0598	.00916	1	186	1.83
Accounting/Bookkeeping 1984 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1344	.1212	.01322	1	247	3.77
Intercept Differences for Sex	8	9	.1212	.0997	.02149	1	248	6.06
Home Economics 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1991	.1991	.00001	1	547	0.01
Intercept Differences for Sex	8	9	.1991	.1805	.01858	1	548	12.72 **
Home Economics 1984-1985 Freshmen (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2470	.2457	.00130	1	519	0.89
Intercept Differences for Ethnicity	11	12	.2457	.1571	.08860	1	520	61.08**
Home Economics 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1351	.1331	.00204	1	312	0.74
Intercept Differences for Sex	8	9	.1331	.0916	.04143	1	313	14.96 **

Table D-9. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Home Economics 1985-1986 Freshmen (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1182	.1094	.00877	1	312	3.10
Intercept Differences for Ethnicity	11	12	.1094	.0916	.01776	1	313	6.24
Home Economics 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1202	.1196	.00056	1	321	0.20
Intercept Differences for Sex	8	9	.1196	.1008	.01883	1	322	6.89 *
Home Economics 1984-1985 Sophomore (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1692	.1518	.01742	1	321	6.73*
Home Economics 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1136	.1007	.01287	1	394	5.72
Intercept Differences for Sex	8	9	.1007	.0841	.01668	1	395	7.33 *
Home Economics 1985-1986 Sophomore (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0964	.0900	.00642	1	394	2.80
Intercept Differences for Ethnicity	11	12	.0900	.0841	.00596	1	395	2.59
Home Economics 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0636	.0627	.00085	1	279	0.25
Intercept Differences for Sex	8	9	.0627	.0505	.01222	1	280	3.65
Home Economics 1984-1985 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0732	.0723	.00093	1	279	0.28
Intercept Differences for Ethnicity	11	12	.0723	.0505	.02174	1	280	6.56
Home Economics 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1260	.1247	.00128	1	358	0.52
Intercept Differences for Sex	8	9	.1247	.0690	.05569	1	359	22.84 **
Home Economics 1985-1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0812	.0764	.00477	1	358	1.86
Intercept Differences for Ethnicity	11	12	.0764	.0690	.00738	1	359	2.87
Home Economics 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0802	.0796	.00057	1	318	0.20
Intercept Differences for Sex	8	9	.0796	.0517	.02788	1	319	9.66 *
Home Economics 1984-1985 Senior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0581	.0565	.00162	1	318	0.55
Intercept Differences for Ethnicity	11	12	.0565	.0517	.00478	1	319	1.62

Table D-9. (Concluded)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Computer Programming 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0710	.0680	.00307	1	227	0.75
Intercept Differences for Sex	8	9	.0680	.0295	.03848	1	228	9.41 *
Computer Programming 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0446	.0270	.01753	1	240	4.40
Intercept Differences for Sex	8	9	.0270	.0237	.00330	1	241	0.82
Computer Programming 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2122	.1952	.01698	1	157	3.38
Intercept Differences for Sex	8	9	.1952	.1416	.05361	1	158	10.53 *

* $p < .01$.

** $p < .001$.

Table D-10. F-Tests of Significance for Technical Composite

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
English I - IV 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1589	.1586	.00034	2	2,422	0.48
Sex & Ethnicity Interaction Test	2	3	.1586	.1547	.00387	2	2,424	5.58 *
Slope Differences for Sex	7	8	.1526	.1476	.00506	1	2,430	14.51 **
Slope Differences for Ethnicity	10	11	.0626	.0624	.00016	2	2,428	0.21
Intercept Differences for Ethnicity	11	12	.0624	.0593	.00313	2	2,430	4.06
English I - IV 1985 - 1986 Freshmen (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	1193	.1186	.00074	2	1,989	0.83
Sex & Ethnicity Interaction Test	2	3	.1186	.1158	.00283	2	1,991	3.20
Slope Differences for Sex	7	8	.0997	.0974	.00228	1	1,997	5.05
Intercept Differences for Sex	8	9	.0974	.0337	.06368	1	1,998	140.96 **
Slope Differences for Ethnicity	10	11	.0517	.0494	.00238	2	1,995	2.50
Intercept Differences for Ethnicity	11	12	.0494	.0337	.01562	2	1,997	16.41 **
English I - IV 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1698	.1679	.00188	2	2,296	2.61
Sex & Ethnicity Interaction Test	2	3	.1679	.1673	.00054	2	2,298	0.74
Slope Differences for Sex	7	8	.1625	.1491	.01342	1	2,304	36.92 **
Slope Differences for Ethnicity	10	11	.0649	.0641	.00077	2	2,302	0.95
Intercept Differences for Ethnicity	11	12	.0641	.0484	.01571	2	2,304	19.34 **
English I - IV 1985 - 1986 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1733	.1731	.00019	2	1,942	0.23
Sex & Ethnicity Interaction Test	2	3	.1731	.1730	.00008	2	1,944	0.10
Slope Differences for Sex	7	8	.1607	.1493	.01136	1	1,950	26.39 **
Slope Differences for Ethnicity	10	11	.0716	.0708	.00086	2	1,948	0.90
Intercept Differences for Ethnicity	11	12	.0708	.0400	.03082	2	1,950	32.34 **
English I - IV 1984 - 1985 Junior (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1449	.1446	.00022	2	1,721	0.22
Sex & Ethnicity Interaction Test	2	3	.1446	.1441	.00055	2	1,723	0.56
Slope Differences for Sex	7	8	.1373	.1272	.01012	1	1,729	20.29 **
Slope Differences for Ethnicity	10	11	.0298	.0296	.00016	2	1,727	0.14
Intercept Differences for Ethnicity	11	12	.0296	.0102	.01939	2	1,729	17.28 **
English I - IV 1985 - 1986 Junior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1362	.13[illegible]	.00007	1	1,258	0.11
Sex & Ethnicity Interaction Test	2	3	.1361	.1361	.00003	1	1,259	0.04
Slope Differences for Sex	7	8	.1336	.1213	.01256	1	1,262	18.30 **
Slope Differences for Ethnicity	10	11	.0212	.0209	.00025	1	1,262	0.33
Intercept Differences for Ethnicity	11	12	.0209	.0046	.01629	1	1,263	21.01 **

Table D-10. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
English I - IV 1984 - 1985 Senior (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1200	.1186	.00142	2	1,275	1.03
Sex & Ethnicity Interaction Test	2	3	.1186	.1169	.00171	2	1,277	1.24
Slope Differences for Sex	7	8	.1103	.1013	.00900	1	1,283	12.98 **
Slope Differences for Ethnicity	10	11	.0443	.0428	.00155	2	1,281	1.04
Intercept Differences for Ethnicity	11	12	.0428	.0323	.01047	2	1,283	7.02 **
General Math 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.0472	.0457	.00146	2	1,167	0.89
Sex & Ethnicity Interaction Test	2	3	.0457	.0443	.00143	2	1,169	0.88
Slope Differences for Sex	7	8	.0399	.0397	.00010	1	1,175	0.12
Intercept Differences for Sex	8	9	.0397	.0208	.01894	1	1,176	23.20 **
Slope Differences for Ethnicity	10	11	.0251	.0224	.00275	2	1,173	1.65
Intercept Differences for Ethnicity	11	12	.0224	.0208	.00159	2	1,175	0.95
General Math 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.0549	.0481	.00679	2	736	2.65
Sex & Ethnicity Interaction Test	2	3	.0481	.0443	.00375	2	738	1.45
Slope Differences for Sex	7	8	.0341	.0329	.00126	1	744	0.97
Intercept Differences for Sex	8	9	.0329	.0242	.00870	1	745	6.70 *
Slope Differences for Ethnicity	10	11	.0321	.0313	.00087	2	742	0.33
Intercept Differences for Ethnicity	11	12	.0313	.0242	.00708	2	744	2.72
General Math 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0899	.0864	.00347	1	222	0.85
Intercept Differences for Sex	8	9	.0864	.0276	.05877	1	223	14.35 **
General Math 1985 - 1986 Junior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0457	.0454	.00026	1	195	0.05
Intercept Differences for Ethnicity	11	12	.0454	.0362	.00924	1	196	1.90
General Math 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0756	.0658	.00981	1	230	2.44
Intercept Differences for Sex	8	9	.0658	.0559	.00983	1	231	2.43
General Math 1984 - 1985 Senior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0870	.0867	.00024	1	203	0.05
Intercept Differences for Ethnicity	11	12	.0867	.0659	.02081	1	204	4.65
Algebra 1984 - 1985 Freshmen (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.0904	.0835	.00187	1	1,180	2.42
Sex & Ethnicity Interaction Test	2	3	.0885	.0878	.00073	1	1,181	0.94
Slope Differences for Sex	7	8	.0863	.0789	.00741	1	1,184	9.60 *
Intercept Differences for Sex	8	9	.0789	.0187	.06022	1	1,185	77.48 **
Slope Differences for Ethnicity	10	11	.0216	.0198	.00177	1	1,184	2.14
Intercept Differences for Ethnicity	11	12	.0198	.0187	.00115	1	1,185	1.39

Table D-10. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Algebra 1985 - 1986 Freshmen (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1204	.1197	.00067	1	708	0.54
Sex & Ethnicity Interaction Test	2	3	.1197	.1184	.00130	1	709	1.04
Slope Differences for Sex	7	8	.1046	.0960	.00856	1	712	6.80 *
Intercept Differences for Sex	8	9	.0960	.0276	.06849	1	713	54.02 **
Slope Differences for Ethnicity	10	11	.0510	.0497	.00137	1	712	1.03
Intercept Differences for Ethnicity	11	12	.0497	.0276	.02210	1	713	16.58 **
Algebra 1984 - 1985 Sophomore (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.0590	.0582	.00073	1	871	0.67
Sex & Ethnicity Interaction Test	2	3	.0582	.0521	.00613	1	872	5.68
Slope Differences for Sex	7	8	.0507	.0447	.00600	1	875	5.53
Intercept Differences for Sex	8	9	.0447	.0084	.03630	1	876	33.29 **
Slope Differences for Ethnicity	10	11	.0125	.0124	.00008	1	875	0.07
Intercept Differences for Ethnicity	11	12	.0124	.0084	.00404	1	876	3.58
Algebra 1985 - 1986 Sophomore (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.0858	.0842	.00163	1	617	1.10
Sex & Ethnicity Interaction Test	2	3	.0842	.0833	.00096	1	618	0.65
Slope Differences for Sex	7	8	.0701	.0642	.00588	1	621	3.92
Intercept Differences for Sex	8	9	.0642	.0302	.03401	1	622	22.60 **
Slope Differences for Ethnicity	10	11	.0466	.0461	.00048	1	621	0.31
Intercept Differences for Ethnicity	11	12	.0461	.0302	.01589	1	622	10.36 *
Algebra 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0333	.0227	.01054	1	273	2.98
Intercept Differences for Sex	8	9	.0227	.0140	.00871	1	274	2.44
Algebra 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0494	.0485	.00087	1	273	0.25
Intercept Differences for Ethnicity	11	12	.0485	.0140	.03454	1	274	9.95 *
Geometry 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1018	.0996	.00220	1	511	1.25
Intercept Differences for Sex	8	9	.0996	.0791	.02047	1	512	11.64 **
Geometry 1985 - 1986 Freshmen (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1011	.1005	.00063	2	509	0.18
Intercept Differences for Ethnicity	11	12	.1005	.0791	.02136	2	511	6.07 *
Geometry 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1179	.1152	.00276	1	561	1.75
Intercept Differences for Sex	8	9	.1152	.0745	.04065	1	562	25.82 **
Geometry 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0858	.0801	.00575	2	559	1.76
Intercept Differences for Ethnicity	11	12	.0801	.0746	.00553	2	561	1.69

Table D-10. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Geometry 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1810	.1789	.00205	1	410	1.03
Intercept Differences for Sex	8	9	.1789	.1072	.07167	1	411	35.88 **
Geometry 1985 - 1986 Sophomore (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1523	.1453	.00703	1	371	3.08
Intercept Differences for Ethnicity	11	12	.1453	.1059	.03940	1	372	17.15 **
Geometry 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1360	.1245	.01155	1	305	4.08
Intercept Differences for Sex	8	9	.1245	.0688	.05564	1	306	19.45 **
Geometry 1984 - 1985 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0732	.0701	.00317	1	305	1.04
Intercept Differences for Ethnicity	11	12	.0701	.0688	.00125	1	306	0.41
Geometry 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1679	.1448	.02310	1	123	3.41
Intercept Differences for Sex	8	9	.1448	.1015	.04325	1	124	6.27
Geometry 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2123	.2103	.00204	1	123	0.32
Intercept Differences for Ethnicity	11	12	.2103	.1015	.10873	1	124	17.07 **
Geometry 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1442	.1441	.00006	1	107	0.01
Intercept Differences for Sex	8	9	.1442	.1389	.00530	1	108	0.67
Geometry 1984 - 1985 Senior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1738	.1736	.00018	1	107	0.02
Intercept Differences for Ethnicity	11	12	.1736	.1389	.03476	1	108	4.54
General Science 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1445	.1432	.00130	2	1,956	1.48
Sex & Ethnicity Interaction Test	2	3	.1432	.1367	.00654	2	1,958	7.48 **
Consistent Over or Under prediction of Subgroup	2	4	.1432	.1411	.00216	3	1,958	1.64
General Science 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0997	.0902	.00947	1	274	2.88
Intercept Differences for Sex	8	9	.0902	.0649	.02537	1	275	7.67 *
General Science 1985 - 1986 Freshmen (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0789	.0674	.01151	1	240	3.00
Intercept Differences for Ethnicity	11	12	.0674	.0658	.00159	1	241	0.41

Table D-10. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
General Science 1984 - 1985 Sophomore (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1679	.1667	.00120	1	341	0.49
Sex & Ethnicity Interaction Test	2	3	.1667	.15[illegible]	.01484	1	342	6.09
Slope Differences for Sex	7	8	.1387	.1359	.00281	1	345	1.13
Intercept Differences for Sex	8	9	.1359	.0584	.07752	1	346	31.04 **
Slope Differences for Ethnicity	10	11	.0690	.0669	.00207	1	345	0.77
Intercept Differences for Ethnicity	11	12	.0669	.0584	.00853	1	346	3.16
General Science 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1404	.1392	.00124	1	183	0.26
Intercept Differences for Sex	8	9	.1392	.0804	.05878	1	184	12.56 **
General Science 1985 - 1986 Sophomore (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1335	.1318	.00175	1	158	0.32
Intercept Differences for Ethnicity	11	12	.1318	.0841	.04772	1	159	8.74 *
General Science 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1088	.1042	.00462	1	258	1.34
Intercept Differences for Sex	8	9	.1042	.0696	.03464	1	259	10.01 *
General Science 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0867	.0865	.00018	1	258	0.05
Intercept Differences for Ethnicity	11	12	.0865	.0696	.01691	1	259	4.79
General Science 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1067	.1053	.00137	1	[illegible]	0.28
Intercept Differences for Sex	8	9	.1053	.0533	.05204	1	183	10.64 *
Biology I - II 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1737	.1723	.00138	1	299	0.50
Intercept Differences for Sex	8	9	.1723	.1076	.06476	1	300	23.47 **
Biology I - II 1984 - 1985 Freshmen (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1199	.1143	.00562	1	299	1.91
Intercept Differences for Ethnicity	11	12	.1143	.1076	.00674	1	300	2.28
Biology I - II 1985 - 1986 Freshmen (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.0920	.0902	.00176	1	1,120	2.17
Sex & Ethnicity Interaction Test	2	3	.0931	.0925	.00056	1	1,120	0.70
Slope Differences for Sex	7	8	.0908	.0879	.00293	1	1,123	3.62
Intercept Differences for Sex	8	9	.0879	.0357	.05219	1	1,124	64.31 **
Slope Differences for Ethnicity	10	11	.0406	.0403	.00038	1	1,123	0.44
Intercept Differences for Ethnicity	11	12	.0403	.0357	.00453	1	1,124	5.31

Table D-10. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Biology I - II 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1134	.1108	.00257	2	1,371	1.99
Sex & Ethnicity Interaction Test	2	3	.1108	.1086	.00217	2	1,373	1.68
Slope Differences for Sex	7	8	.1011	.0930	.00818	1	1,379	12.55 **
Slope Differences for Ethnicity	10	11	.0546	.0533	.00134	2	1,377	0.98
Intercept Differences for Ethnicity	11	12	.0533	.0531	.00017	2	1,379	0.12
Biology I - II 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1262	.1044	.02177	1	335	8.35 *
Biology I - II 1985 - 1986 Sophomore (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0250	.0230	.00199	2	333	0.34
Intercept Differences for Ethnicity	11	12	.0230	.0145	.00848	2	335	1.45
Biology I - II 1984 - 1985 Junior (Ethnicity = White Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1470	.1467	.00034	1	397	0.16
Sex & Ethnicity Interaction Test	2	3	.1467	.1466	.00014	1	398	0.06
Slope Differences for Sex	7	8	.1437	.1434	.00028	1	401	0.13
Intercept Differences for Sex	8	9	.1434	.0683	.07507	1	402	35.23 **
Slope Differences for Ethnicity	10	11	.0694	.0684	.00095	1	401	0.41
Intercept Differences for Ethnicity	11	12	.0684	.0683	.00008	1	402	0.04
Biology I - II 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1843	.1843	.00000	1	147	0.00
Intercept Differences for Sex	8	9	.1843	.0536	.13066	1	148	23.71 **
Biology I - II 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.3062	.2986	.00762	1	195	2.14
Intercept Differences for Sex	8	9	.2986	.1890	.10962	1	196	30.63 **
Biology I - II 1984 - 1985 Senior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2779	.2773	.00061	1	176	0.15
Intercept Differences for Ethnicity	11	12	.2773	[illegible]876	.08971	1	177	21.97 **
Chemistry I - II 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1260	.1063	.01976	1	168	3.80
Intercept Differences for Sex	8	9	.1063	.0457	.06062	1	169	11.46 **
Chemistry I - II 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0935	.0896	.00388	1	426	1.82
Intercept Differences for Sex	8	9	.0896	.0200	.06957	1	427	32.63 **
Chemistry I - II 1984 - 1985 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0211	.0201	.00105	1	426	0.46
Intercept Differences for Ethnicity	11	12	.0201	.0200	.00005	1	427	0.02

Table D-10. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df1	df2	F
Chemistry I - II 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0848	.0846	.00023	1	156	0.04
Intercept Differences for Sex	8	9	.0846	.0801	.00451	1	157	0.77
Chemistry I - II 1984 - 1985 Senior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0955	.0802	.01526	1	156	2.63
Intercept Differences for Ethnicity	11	12	.0803	.0801	.00019	1	157	0.03
Government & Civics 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1141	.1133	.00086	1	344	0.33
Intercept Differences for Sex	8	9	.1133	.0733	.03998	1	345	15.56 **
Government & Civics 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0614	.0510	.01045	1	417	4.64
Intercept Differences for Sex	8	9	.0510	.0106	.04041	1	418	17.80 **
Government & Civics 1985 - 1986 Sophomore (Ethnicity = White & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0514	.0514	.00000	1	388	0.00
Intercept Differences for Ethnicity	11	12	.0514	.0105	.04089	1	389	16.77 **
Government & Civics 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1339	.1284	.00545	1	456	2.87
Intercept Differences for Sex	8	9	.1284	.0555	.07294	1	457	38.24 **
Government & Civics 1984 - 1985 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0793	.0778	.00148	1	456	0.73
Intercept Differences for Ethnicity	11	12	.0778	.0555	.02237	1	457	11.09 **
Government & Civics 1985 - 1986 Junior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1111	.1109	.00017	1	707	0.14
Sex & Ethnicity Interaction Test	2	3	.1109	.1107	.00021	1	708	0.17
Slope Differences for Sex	7	8	.1102	.0916	.01863	1	711	14.89 **
Slope Differences for Ethnicity	10	11	.0349	.0322	.00268	1	711	1.98
Intercept Differences for Ethnicity	11	12	.0322	.0278	.00441	1	712	3.25
Government & Civics 1984 - 1985 Senior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1142	.1135	.00071	1	602	0.48
Sex & Ethnicity Interaction Test	2	3	.1135	.1104	.00311	1	603	2.11
Slope Differences for Sex	7	8	.1095	.1087	.00083	1	606	0.56
Intercept Differences for Sex	8	9	.1087	.0629	.04579	1	607	31.18 **
Slope Differences for Ethnicity	10	11	.0629	.0629	.00001	1	606	0.00
Intercept Differences for Ethnicity	11	12	.0629	.0629	.00002	1	607	0.01

Table D-10. (Continued)

F-Test Comparison	Comparison		R^2					
	Full	Restricted	Full	Restricted	R^2 Change	df_1	df_2	F
History 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1681	.1658	.00227	2	1,319	1.80
Sex & Ethnicity Interaction Test	2	3	.1658	.1628	.00301	2	1,321	2.39
Slope Differences for Sex	7	8	.1599	.1576	.00229	1	1,327	3.61
Intercept Differences for Sex	8	9	.1576	.0831	.07448	1	1,328	117.41 **
Slope Differences for Ethnicity	10	11	.0891	.0862	.00285	2	1,325	2.07
Intercept Differences for Ethnicity	11	12	.0862	.0831	.00316	2	1,327	2.29
History 1985 - 1986 Freshmen (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1099	.1078	.00215	1	1,344	3.24
Sex & Ethnicity Interaction Test	2	3	.1104	.1102	.00016	1	1,344	0.24
Slope Differences for Sex	7	8	.1055	.1016	.00392	1	1,347	5.90
Intercept Differences for Sex	8	9	.1016	.0653	.03630	1	1,348	54.46 **
Slope Differences for Ethnicity	10	11	.0730	.0729	.00012	1	1,347	0.17
Intercept Differences for Ethnicity	11	12	.0729	.0653	.00767	1	1,348	11.15 **
History 1984 - 1985 Sophomore (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1312	.1281	.00313	1	1,431	5.16
Sex & Ethnicity Interaction Test	2	3	.1306	.1297	.00094	1	1,431	1.55
Slope Differences for Sex	7	8	.1226	.1199	.00273	1	1,434	4.46
Intercept Differences for Sex	8	9	.1199	.0629	.05695	1	1,435	92.85 **
Slope Differences for Ethnicity	10	11	.0775	.0772	.00025	1	1,434	0.38
Intercept Differences for Ethnicity	11	12	.0772	.0629	.01431	1	1,435	22.26 **
History 1985 - 1986 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1479	.1415	.00639	2	1,466	5.49 *
Sex & Ethnicity Interaction Test	2	3	.1473	.1425	.00485	2	1,467	4.18
Slope Differences for Sex	7	8	.1266	.1189	.00770	1	1,473	12.98 **
Slope Differences for Ethnicity	10	11	.0748	.0740	.00076	2	1,471	0.60
Intercept Differences for Ethnicity	11	12	.0740	.0434	.03059	2	1,473	24.33 **
History 1984 - 1985 Junior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1653	.1634	.00190	1	1,102	2.51
Sex & Ethnicity Interaction Test	2	3	.1634	.1630	.00037	1	1,103	0.48
Slope Differences for Sex	7	8	.1503	.1409	.00938	1	1,106	12.21 **
Slope Differences for Ethnicity	10	11	.0878	.0875	.00036	1	1,106	0.44
Intercept Differences for Ethnicity	11	12	.0875	.0578	.02970	1	1,107	36.03 **
History 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1196	.1096	.01004	1	428	4.88
Intercept Differences for Sex	8	9	.1096	.0274	.08216	1	429	39.58 **
History 1985 - 1986 Junior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0507	.0482	.00244	1	409	1.05
Intercept Differences for Ethnicity	11	12	.0482	.0257	.02255	1	410	9.71 *

Table D-10. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
History 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2079	.1960	.01194	1	423	6.36
Intercept Differences for Sex	8	9	.1960	.1342	.06179	1	424	32.58 **
History 1984 - 1985 Senior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1905	.1890	.00146	1	402	0.72
Intercept Differences for Ethnicity	11	12	.1890	.1396	.04938	1	403	24.54 **
Foreign Language 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1068	.1046	.00221	1	1,012	2.51
Intercept Differences for Sex	8	9	.1046	.0315	.07307	1	1,013	82.66 **
Foreign Language 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0339	.0334	.00045	2	1,010	0.23
Intercept Differences for Ethnicity	11	12	.0334	.0315	.00195	2	1,012	1.02
Foreign Language 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0769	.0655	.01140	1	797	9.84 *
Foreign Language 1985 - 1986 Freshmen (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0210	.0154	.00562	2	795	2.28
Intercept Differences for Ethnicity	11	12	.0154	.0115	.00386	2	797	1.56
Foreign Language 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1082	.0934	.01484	1	892	14.84 **
Foreign Language 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0134	.0064	.00698	2	890	3.15
Intercept Differences for Ethnicity	11	12	.0064	.0055	.00093	2	892	0.42
Foreign Language 1985 - 1986 Sophomore (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.0906	.0895	.00116	1	604	0.77
Sex & Ethnicity Interaction Test	2	3	.0895	.0890	.00048	1	605	0.32
Slope Differences for Sex	7	8	.0862	.0789	.00733	1	608	4.88
Intercept Differences for Sex	8	9	.0789	.0098	.06909	1	609	45.68 **
Slope Differences for Ethnicity	10	11	.0154	.0098	.00560	1	608	3.46
Intercept Differences for Ethnicity	11	12	.0098	.0098	.00002	1	609	0.02
Foreign Language 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1135	.1130	.00047	1	247	0.13
Intercept Differences for Sex	8	9	.1130	.0331	.07992	1	248	22.35 **
Foreign Language 1985 - 1986 Junior (Ethnicity = White & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0166	.0144	.00218	1	205	0.45
Intercept Differences for Ethnicity	11	12	.0144	.0129	.00153	1	206	0.32

Table D-10. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Foreign Language 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0647	.0645	.00021	1	224	0.05
Intercept Differences for Sex	8	9	.0645	.0321	.03246	1	225	7.81 *
Foreign Language 1984 - 1985 Senior (Ethnicity = White & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0193	.0098	.00947	1	185	1.79
Intercept Differences for Ethnicity	11	12	.0098	.0095	.00035	1	186	0.07
Typing & Word Processing 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1401	.1298	.01037	1	507	6.12
Intercept Differences for Sex	8	9	.1298	.0929	.03688	1	508	21.53 **
Typing & Word Processing 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0984	.0975	.00092	2	505	0.26
Intercept Differences for Ethnicity	11	12	.0975	.0929	.00458	2	507	1.29
Typing & Word Processing 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0855	.0855	.00004	1	492	0.02
Intercept Differences for Sex	8	9	.0855	.0418	.04370	1	493	23.56 **
Typing & Word Processing 1985 - 1986 Freshmen (Ethnicity = White & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0415	.0358	.00563	1	445	2.62
Intercept Differences for Ethnicity	11	12	.0358	.0353	.00053	1	446	0.25
Typing & Word Processing 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0832	.0796	.00363	1	631	2.50
Intercept Differences for Sex	8	9	.0796	.0174	.06211	1	632	42.65 **
Typing & Word Processing 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0260	.0212	.00484	2	629	1.56
Intercept Differences for Ethnicity	11	12	.0212	.0174	.003[illegible]	2	631	1.21
Typing & Word Processing 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0975	.0707	.02680	1	405	12.02 **
Typing & Word Processing 1985 - 1986 Sophomore (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0474	.0474	.00003	1	374	0.01
Intercept Differences for Ethnicity	11	12	.0474	.0394	.00799	1	375	3.15
Typing & Word Processing 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1248	.1193	.00547	1	[illegible]	2.44
Intercept Differences for Sex	8	9	.1193	.0175	.10183	1	[illegible]	45.32 **
Typing & Word Processing 1984 - 1985 Junior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0209	.0207	.00026	1	359	0.10
Intercept Differences for Ethnicity	11	12	.0207	.0206	.0000[illegible]	1	360	0.02

Table D-10. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Typing & Word Processing 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0877	.0785	.00914	1	221	2.22
Intercept Differences for Sex	8	9	.0786	.0214	.05718	1	222	13.73 **
Typing & Word Processing 1985-1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0690	.0562	.01285	1	221	3.05
Intercept Differences for Ethnicity	11	12	.0562	.0214	.03478	1	222	8.18*
Typing & Word Processing 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0546	.[illegible]38	.00080	1	[illegible]	0.18
Intercept Differences for Sex	8	9	.0538	.0183	.03544	1	217	[illegible]
Accounting/Bookkeeping 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1294	.1036	.02573	1	311	9.19 *
Home Economics 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1578	.1576	.00024	1	547	0.15
Intercept Differences for Sex	8	9	.1576	.0671	.09049	1	548	58.86 **
Home Economics 1984-1985 Freshmen (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1517	.1517	.00000	1	519	0.00
Intercept Differences for Ethnicity	11	12	.1517	.0602	.09145	1	520	56.06**
Home Economics 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1700	.1633	.00666	1	312	2.50
Intercept Differences for Sex	8	9	.1633	.0367	.12659	1	313	47.35 **
Home Economics 1985 - 1986 Freshmen (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0557	.0533	00238	1	312	0.79
Intercept Differences for Ethnicity	11	12	.0533	.0367	.01657	1	313	5.48
Home Economics 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1287	.12[illegible]7	.00003	1	321	0.01
Intercept Differences for Sex	8	9	.1287	.03[illegible]	.09433	1	322	34.36 **
Home Economics 1984-1985 Sophomore (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	1	.0959	.0922	.003[illegible]	1	321	1.30
Intercept Differences for Ethnicity	11	12	.0922	.03[illegible]4	.05787	1	322	20.53**
Home Economics 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1123	.1116	.00065	1	394	0.[illegible]
Intercept Differences for Sex	8	9	.1116	.0207	.09091	1	395	40.42 **
Home Economics 1985-1986 Sophomore (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0357	.0285	.00725	1	394	2.96
Intercept Differences for Ethnicity	11	12	.0285	.0207	.00776	1	395	3.15

Table D-10. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Home Economics 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0946	.0942	.00041	1	318	0.14
Intercept Differences for Sex	8	9	.0942	.0179	.07637	1	319	26.89 **
Home Economics 1984-1985 Senior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0220	.0214	.00059	1	318	0.19
Intercept Differences for Ethnicity	11	12	.0214	.0179	.00349	1	319	1.14
Computer Programming 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1614	.1609	.00059	1	240	0.17
Intercept Differences for Sex	8	9	.1609	.0702	.09070	1	241	26.05 **
Computer Programming 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0502	.0502	.00001	1	152	0.00
Intercept Differences for Sex	8	9	.0502	.0474	.00283	1	153	0.46

* $p < .01$.

** $p < .001$.

Table D-11. F-Tests of Significance for General Composite

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
English I - IV 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2725	.2718	.00073	2	2,422	1.21
Sex & Ethnicity Interaction Test	2	3	.2718	.2663	.00550	2	2,424	9.15 **
Consistent Over or Under prediction of Subgroup	2	4	.2718	.2639	.00794	3	2,424	8.81 **
Slope Differences for Sex	2	5	.2718	.2644	.00737	1	2,424	24.52 **
Slope Differences for Ethnicity	2	6	.2718	.2708	.00098	2	2,424	1.63
English I - IV 1985 - 1986 Freshmen (Ethnicity = White, Black & Hispanic)								
3-way interaction Test (ASVAB*sex*ethnicity)	1	2	.2087	.2075	.00121	2	1,989	1.52
Sex & Ethnicity Interaction Test	2	3	.2075	.2043	.00318	2	1,991	3.99
Slope Differences for Sex	7	8	.1966	.1938	.00276	1	1,997	6.85 *
Intercept Differences for Sex	8	9	.1938	.1520	.04185	1	1,998	103.71 **
Slope Differences for Ethnicity	10	11	.1572	.1538	.00337	2	1,995	3.99
Intercept Differences for Ethnicity	11	12	.1538	.1520	.00184	2	1,997	2.17
English I - IV 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2942	.2939	.00031	2	2,296	0.51
Sex & Ethnicity Interaction Test	2	3	.2939	.2922	.00169	2	2,298	2.76
Slope Differences for Sex	7	8	.2909	.2762	.01475	1	2,304	47.91 **
Slope Differences for Ethnicity	10	11	.2162	.2132	.00300	2	2,302	4.40
Intercept Differences for Ethnicity	11	12	.2132	.2127	.00048	2	2,304	0.70
English I - IV 1985 - 1986 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2415	.2414	.00017	2	1,942	0.22
Sex & Ethnicity Interaction Test	2	3	.2414	.2405	.00083	2	1,944	1.07
Slope Differences for Sex	7	8	.2365	.2254	.01110	1	1,950	28.36 **
Slope Differences for Ethnicity	10	11	.1627	.1618	.00084	2	1,948	0.98
Intercept Differences for Ethnicity	11	12	.1618	.1549	.00688	2	1,950	8.00 **
English I - IV 1984 - 1985 Junior (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2411	.2409	.00021	2	1,721	0.24
Sex & Ethnicity Interaction Test	2	3	.2409	.2406	.00026	2	1,723	0.29
Slope Differences for Sex	7	8	.2389	.2266	.01230	1	1,729	27.94 **
Slope Differences for Ethnicity	10	11	.1324	.1323	.00010	2	1,727	0.10
Intercept Differences for Ethnicity	11	12	.1323	.1297	.00268	2	1,729	2.67
English I - IV 1985 - 1986 Junior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2196	.2195	.00011	1	1,258	0.17
Sex & Ethnicity Interaction Test	2	3	.2195	.2195	.00002	1	1,259	0.03
Slope Differences for Sex	7	8	.2191	.2067	.01236	1	1,262	19.97 **
Slope Differences for Ethnicity	10	11	.1043	.1033	.00103	1	1,262	1.45
Intercept Differences for Ethnicity	11	12	.1033	.1033	.00001	1	1,263	0.02
English I - IV 1984 - 1985 Senior (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1934	.1912	.00216	2	1,275	1.71
Sex & Ethnicity Interaction Test	2	3	.1912	.1904	.00083	2	1,277	0.66
Slope Differences for Sex	7	8	.1851	.1779	.00724	1	1,283	11.39 **
Slope Differences for Ethnicity	10	11	.1385	.1353	.00317	2	1,281	2.36
Intercept Differences for Ethnicity	11	12	.1353	.1346	.00068	2	1,283	0.50

Table D-11. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df1	df2	F
General Math 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1054	.1052	.00013	2	1,167	0.08
Sex & Ethnicity Interaction Test	2	3	.1052	.1017	.00353	2	1,169	2.31
Slope Differences for Sex	7	8	.0986	.0985	.00012	1	1,175	0.16
Intercept Differences for Sex	8	9	.0985	.0890	.00952	1	1,176	12.41 **
Slope Differences for Ethnicity	10	11	.0927	.0920	.00076	2	1,173	0.49
Intercept Differences for Ethnicity	11	12	.0919	.0890	.00295	2	1,175	1.91
General Math 1985 - 1986 Freshmen (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.0433	.0433	.00006	1	549	0.03
Sex & Ethnicity Interaction Test	2	3	.0433	.0405	.00280	1	550	1.61
Slope Differences for Sex	7	8	.0364	.0359	.00051	1	553	0.29
Intercept Differences for Sex	8	9	.0359	.0289	.00699	1	554	4.02
Slope Differences for Ethnicity	10	11	.0329	.0303	.00265	1	553	1.52
Intercept Differences for Ethnicity	11	12	.0303	.0289	.00135	1	554	0.77
General Math 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1269	.1229	.00408	2	736	1.72
Sex & Ethnicity Interaction Test	2	3	.1229	.1182	.00465	2	738	1.96
Slope Differences for Sex	7	8	.1000	.0957	.00430	1	744	3.56
Intercept Differences for Sex	8	9	.0957	.0915	.00419	1	745	3.45
Slope Differences for Ethnicity	10	11	.1108	.1033	.00747	2	742	3.12
Intercept Differences for Ethnicity	11	12	.1033	.0915	.01175	2	744	4.88 *
General Math 1985 - 1986 Sophomore (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1211	.1183	.00274	1	305	0.95
Sex & Ethnicity Interaction Test	2	3	.1184	.1166	.00180	1	306	0.62
Slope Differences for Sex	7	8	.1053	.1050	.00024	1	309	0.08
Intercept Differences for Sex	8	9	.1050	.0664	.03864	1	310	13.38 **
Slope Differences for Ethnicity	10	11	.0774	.0772	.00017	1	309	0.06
Intercept Differences for Ethnicity	11	12	.0772	[illegible]	[illegible]	1	310	3.64
General Math 1984 - 1985 Junior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.0708	.0698	.00094	1	266	0.27
Sex & Ethnicity Interaction Test	2	3	.0698	.0698	.00000	1	267	0.00
Slope Differences for Sex	7	8	.0664	.0659	.00047	1	270	0.13
Intercept Differences for Sex	8	9	.0659	.0354	.03057	1	271	8.87 *
Slope Differences for Ethnicity	10	11	.0384	.0380	.00034	1	270	0.09
Intercept Differences for Ethnicity	11	12	.0380	.0354	.00267	1	271	0.75
General Math 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1386	.1357	.00290	1	222	0.75
Intercept Differences for Sex	8	9	.1357	.0967	.03907	1	223	10.08 *
General Math 1985 - 1986 Junior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1323	.1274	.00494	1	195	1.11
Intercept Differences for Ethnicity	11	12	.1274	.1266	.00084	1	196	0.19

Table D-11. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
General Math 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0899	.0851	.00480	1	230	1.21
Intercept Differences for Sex	8	9	.0851	.0834	.00171	1	231	0.43
General Math 1984 - 1985 Senior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1185	.1185	.00005	1	203	0.01
Intercept Differences for Ethnicity	11	12	.1185	.0964	.02206	1	204	5.11
Algebra 1984 - 1985 Freshmen (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2038	.1985	.00532	1	1,180	7.88 *
Sex & Ethnicity Interaction Test	2	3	.1985	.1984	.00008	1	1,181	0.12
Slope Differences for Sex	7	8	.1931	.1878	.00527	1	1,184	7.74 *
Intercept Differences for Sex	8	9	.1878	.1343	.05350	1	1,185	78.06 **
Slope Differences for Ethnicity	10	11	.1455	.1388	.00673	1	1,184	9.32 *
Intercept Differences for Ethnicity	11	12	.1388	.1343	.00453	1	1,185	6.23
Algebra 1985 - 1986 Freshmen (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2032	.2030	.00019	1	708	0.17
Sex & Ethnicity Interaction Test	2	3	.2030	.2018	.00120	1	709	1.06
Slope Differences for Sex	7	8	.1983	.1968	.00155	1	712	1.38
Intercept Differences for Sex	8	9	.1968	.1428	.05400	1	713	47.93 **
Slope Differences for Ethnicity	10	11	.1465	.1461	.00039	1	712	0.32
Intercept Differences for Ethnicity	11	12	.1461	.1428	.00336	1	713	2.81
Algebra 1984 - 1985 Sophomore (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1428	.1426	.00015	1	871	0.15
Sex & Ethnicity Interaction Test	2	3	.1426	.1348	.00788	1	872	8.01 *
Slope Differences for Sex	7	8	.1329	.1235	.00940	1	875	9.49 *
Intercept Differences for Sex	8	9	.1235	.0909	.03259	1	876	32.57 **
Slope Differences for Ethnicity	10	11	.0921	.0920	.00011	1	875	0.10
Intercept Differences for Ethnicity	11	12	.0920	.0909	.00103	1	876	0.99
Algebra 1985 - 1986 Sophomore (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1319	.1315	.00038	1	617	0.27
Sex & Ethnicity Interaction Test	2	3	.1315	.1293	.00226	1	618	1.61
Slope Differences for Sex	7	8	.1254	.1223	.00309	1	621	2.19
Intercept Differences for Sex	8	9	.1223	.1001	.02219	1	622	15.72 **
Slope Differences for Ethnicity	10	11	.1026	.1022	.00046	1	621	0.32
Intercept Differences for Ethnicity	11	12	.1022	.1001	.00208	1	622	1.44
Algebra 1984 - 1985 Junior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1764	.1757	.00066	1	489	0.39
Sex & Ethnicity Interaction Test	2	3	.1757	.1740	.00170	1	490	1.01
Slope Differences for Sex	7	8	.1574	.1537	.00372	1	493	2.17
Intercept Differences for Sex	8	9	.1537	.1097	.04401	1	494	25.69 **
Slope Differences for Ethnicity	10	11	.1214	.1132	.00823	1	493	4.62
Intercept Differences for Ethnicity	11	12	.1132	.1097	.00347	1	494	1.94

Table D-11. (Continued)

Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Algebra 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1505	.1349	.01565	1	273	5.03
Intercept Differences for Sex	8	9	.1349	.1151	.01980	1	274	6.27
Algebra 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1200	.1166	.00336	1	273	1.04
Intercept Differences for Ethnicity	11	12	.1166	.1151	.00155	1	274	0.48
Algebra 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1230	.1087	.01431	1	265	4.32
Intercept Differences for Sex	8	9	.1087	.0597	.04892	1	266	14.60 **
Algebra 1984 - 1985 Senior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0817	.0636	.01806	1	265	5.21
Intercept Differences for Ethnicity	11	12	.0636	.0597	.00389	1	266	1.11
Geometry 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2336	.2336	.00004	1	511	0.03
Intercept Differences for Sex	8	9	.2336	.2188	.01475	1	512	9.85 *
Geometry 1985 - 1986 Freshmen (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2232	.2193	.00391	2	509	1.28
Intercept Differences for Ethnicity	11	12	.2193	.2188	.00048	2	511	0.16
Geometry 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2155	.2155	.00001	1	561	0.01
Intercept Differences for Sex	8	9	.2155	.1950	.02051	1	562	14.69 **
Geometry 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2062	.1983	.00793	2	559	2.79
Intercept Differences for Ethnicity	11	12	.1983	.1950	.00328	2	561	1.15
Geometry 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2521	.2511	.00101	1	410	0.55
Intercept Differences for Sex	8	9	.2511	.2110	.04006	1	411	21.98 **
Geometry 1985 - 1986 Sophomore (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2443	.2228	.02153	1	371	10.57 *
Geometry 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2097	.2035	.00614	1	305	2.37
Intercept Differences for Sex	8	9	.2035	.1616	.04197	1	306	16.13 **
Geometry 1984 - 1985 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1681	.1665	.00158	1	305	0.58
Intercept Differences for Ethnicity	11	12	.1665	.1616	.00497	1	306	1.83

Table D-11. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Geometry 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2063	.2057	.00065	1	123	0.10
Intercept Differences for Sex	8	9	.2057	.1754	.03028	1	124	4.73
Geometry 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2842	.2401	.04410	1	123	7.58 *
Geometry 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2065	.2061	.00037	1	107	0.05
Intercept Differences for Sex	8	9	.2061	.2060	.00005	1	108	0.01
Geometry 1984 - 1985 Senior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2206	.2189	.00176	1	107	0.24
Intercept Differences for Ethnicity	11	12	.2189	.2060	.01284	1	108	1.77
Calculus 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.0721	.0652	.00685	1	147	1.08
Intercept Differences for Sex	8	9	.0652	.0651	.00012	1	148	0.02
General Science 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2880	.2852	.00274	2	1,956	3.76
Sex & Ethnicity Interaction Test	2	3	.2852	.2778	.00739	2	1,958	10.12 **
Consistent Over or Under prediction of Subgroup	2	4	.2852	.2832	.00205	3	1,958	1.87
General Science 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1376	.1375	.00001	1	274	0.00
Intercept Differences for Sex	8	9	.1375	.1287	.00884	1	275	2.82
General Science 1985 - 1986 Freshmen (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1512	.1293	.02190	1	240	6.19
Intercept Differences for Ethnicity	11	12	.1293	.1292	.00014	1	241	0.04
General Science 1984 - 1985 Sophomore (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2843	.2838	.00049	1	341	0.23
Sex & Ethnicity Interaction Test	2	3	.2839	.2697	.01416	1	342	6.76 *
Slope Differences for Sex	7	8	.2426	.2378	.00476	1	345	2.17
Intercept Differences for Sex	8	9	.2378	.1950	.04281	1	346	19.44 **
Slope Differences for Ethnicity	10	11	.2302	.2183	.01188	1	345	5.32
Intercept Differences for Ethnicity	11	12	.2183	.1950	.02333	1	346	10.33 *
General Science 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1781	.1781	.00004	1	183	0.01
Intercept Differences for Sex	8	9	.1781	.1496	.02849	1	4	6.38
General Science 1985 - 1986 Sophomore (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1996	.1978	.00172	1	158	0.34
Intercept Differences for Ethnicity	11	12	.1978	[illegible]	.02548	1	159	5.05

Table D-11. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df1	df2	F
General Science 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1008	.0794	.02144	1	174	4.15
Intercept Differences for Sex	8	9	.0794	.0543	.02508	1	175	4.77
General Science 1984 - 1985 Junior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1303	.1288	.00153	1	149	0.26
Intercept Differences for Ethnicity	11	12	.1288	.0668	.06197	1	150	10.67 *
General Science 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2250	.2250	.00000	1	258	0.00
Intercept Differences fo Sex	8	9	.2249	.2042	.02074	1	259	6.93 *
General Science 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.210[illegible]	.2043	.00623	1	258	2.04
Intercept Differences for Ethnicity	11	12	.2043	.2042	.00013	1	259	0.04
General Science 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1111	.1110	.00017	1	182	0.04
Intercept Differences for Sex	8	9	.1110	.0832	.02774	1	183	5.71
Biology I - II 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2489	.2478	.00109	1	299	0.4[illegible]
Intercept Differences for Sex	8	9	.2478	.2228	.02502	1	300	9.98 *
Biology I - II 1984 - 1985 Freshmen (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2269	.2228	.00410	1	299	1.58
Intercept Differences for Ethnicity	11	12	.2228	.2228	.00003	1	300	0.01
Biology I - II 1985 - 1986 Freshmen (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1893	.1889	.00032	1	1,120	0.45
Sex & Ethnicity Interaction Test	2	3	.1891	.1891	.00000	1	1,120	0.00
Slope Differences for Sex	7	8	.1881	.1879	.00016	1	1,123	[illegible].2[illegible]
Intercept Differences for Sex	8	9	.1879	.1512	.03669	1	1,124	50.78 **
Slope Differences for Ethnicity	10	11	.1521	.1520	.00010	1	1,123	0.13
Intercept Differences for Ethnicity	11	12	.1520	.1512	.00084	1	1,124	1.12
Biology I - II 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2772	.2771	.00003	2	1,371	0.03
Sex & Ethnicity Interaction Test	2	3	.2772	.2695	.00769	2	1,373	7.30 **
Consistent Over or Under prediction of Subgroup	2	4	.2772	.2592	.01792	3	1,373	11.35 **
Slope Differences for Sex	2	5	.2772	.2595	.01763	1	1,373	33.50 **
Slope Differences for Ethnicity	2	6	.2772	.2765	.00069	2	1,373	0.65
Biology I - II 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2445	.2286	.01594	1	335	7.07 *
Biology I - II 1985 - 1986 Sophomore (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1642	.1604	.00383	2	333	0.76
Intercept Differences for Ethnicity	11	12	.1604	.1583	.00203	2	335	0.40

Table D-11. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df1	df2	F
Biology I - II 1984 - 1985 Junior (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2678	.2675	.00025	1	397	0.16
Sex & Ethnicity Interaction Test	2	3	.2675	.2672	.00033	1	398	0.13
Slope Differences for Sex	7	8	.2556	.2553	.00026	1	401	0.14
Intercept Differences for Sex	8	9	.2553	.2103	.04499	1	402	24 29 **
Slope Differences for Ethnicity	10	11	.2251	.2250	.00011	1	401	0.06
Intercept Differences for Ethnicity	11	12	.2250	.2103	.01462	1	402	7.59 *
Biology I - II 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.3803	.3633	.01691	1	147	4.01
Intercept Differences for Sex	8	9	.3633	.2987	.06468	1	148	15.04 **
Biology I - II 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.3556	.3513	.00424	1	195	1.28
Intercept Differences for Sex	8	9	.3513	.3083	.04306	1	196	15.01 **
Biology I - II 1984 - 1985 Senior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.3619	.3601	.00176	1	176	0.48
Intercept Differences for Ethnicity	11	12	.3602	.3242	.03593	1	177	9.94 *
Chemistry I - II 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1839	.1831	.00068	1	128	0.14
Intercept Differences for Sex	8	9	.1831	.1429	.04021	1	129	6.35
Chemistry I - II 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1096	.1058	.00376	1	168	[illegible].71
Intercept Differences for Sex	8	9	.1058	.0681	.03775	1	169	[illegible].13 *
Chemistry I - II 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1364	.1279	.00845	1	430	4.[illegible]
Intercept Differences for Sex	8	9	.1279	.0695	.05845	1	431	28.8[illegible] **
Chemistry I - II 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2022	.2012	.00104	1	426	0.55
Intercept Differences for Sex	8	9	.2012	.1272	.07395	1	427	39.53 **
Chemistry I - II 1984 - 1985 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1555	.1478	.00765	1	426	3.86
Intercept Differences for Ethnicity	11	12	.1478	.1272	.02060	1	427	10.32 *
Chemistry I - II 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1677	.1616	.00611	1	137	1.01
Intercept Differences for Sex	8	9	.1616	.0759	.08563	1	138	14.09 **
Chemistry I - II 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0948	.0936	.00124	1	137	0.19
Intercept Differences for Ethnicity	11	12	.0936	.0759	.01764	1	138	2.69

Table D-11. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df1	df2	F
Chemistry I - II 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1987	.1986	.00004	1	156	0.01
Intercept Differences for Sex	8	9	.1986	.1939	.00470	1	157	0.92
Chemistry I - II 1984 - 1985 Senior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2339	.2059	.02801	1	156	5.70
Intercept Differences for Ethnicity	11	12	.2059	.1939	.01195	1	157	2.36
Physics I - II 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1211	.1158	.00530	1	232	1.40
Intercept Differences for Sex	8	9	.1158	.0649	.05096	1	233	13.43 **
Physics I - II 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1779	.1734	.00455	1	166	0.92
Intercept Differences for Sex	8	9	.1734	.0993	.07404	1	167	14.96 **
Government & Civics 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2637	.2605	.00318	1	344	1.49
Intercept Differences for Sex	8	9	.2605	.2483	.01223	1	345	5.71
Government & Civics 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1723	.1547	.01759	1	155	3.29
Intercept Differences for Sex	8	9	.1547	.1160	.03867	1	156	7.14 *
Government & Civics 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1772	.1614	.01579	1	417	8.00 *
Government & Civics 1985 - 1986 Sophomore (Ethnicity = White & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1518	.1516	.00018	1	388	0.08
Intercept Differences for Ethnicity	11	12	.1516	.1327	.01890	1	389	8.67 *
Government & Civics 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2593	.2522	.00718	1	456	4.42
Intercept Differences for Sex	8	9	.2521	.2182	.03391	1	457	20.72 **
Government & Civics 1984 - 1985 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2223	.2217	.00057	1	456	0.33
Intercept Differences for Ethnicity	11	12	.2217	.2182	.00348	1	457	2.04
Government & Civics 1985 - 1986 Junior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2470	.2461	.00090	1	707	0.84
Sex & Ethnicity Interaction Test	2	3	.2461	.2449	.00121	1	708	1.14
Slope Differences for Sex	7	8	.2387	.2305	.00826	1	711	7.72 *
Intercept Differences for Sex	3	9	.2305	.1865	.04399	1	712	40.70 **
Slope Differences for Ethnicity	10	11	.1912	.1911	.00006	1	711	0.06
Intercept Differences for Ethnicity	11	12	.1911	.1865	.00460	1	712	4.05

Table D-11. (Continued)

F-Test Comparison	Comparison		R^2					
	Full	Restricted	Full	Restricted	R^2 Change	df_1	df_2	F
Government & Civics 1984 - 1985 Senior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2560	.2560	.00002	1	602	0.02
Sex & Ethnicity Interaction Test	2	3	.2560	.2555	.00049	1	603	0.40
Slope Differences for Sex	7	8	.2450	.2450	.00000	1	606	0.00
Intercept Differences for Sex	8	9	.2450	.2221	.02293	1	607	18.44 **
Slope Differences for Ethnicity	10	11	.2324	.2324	.00001	1	606	0.01
Intercept Differences for Ethnicity	11	12	.2324	.2221	.01033	1	607	8.17 *
History 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2958	.2950	.00079	2	1,319	0.74
Sex & Ethnicity Interaction Test	2	3	.2950	.2916	.00344	2	1,321	3.2[illegible]
Slope Differences for Sex	7	8	.2871	.2848	.00232	1	1,327	4.33
Intercept Differences for Sex	8	9	.2848	.2478	.03697	1	1,328	68.64 **
Slope Differences for Ethnicity	10	11	.2556	.2505	.00510	2	1,325	4.54
Intercept Differences for Ethnicity	11	12	.2505	.2478	.00270	2	1,327	2.39
History 1985 - 1986 Freshmen (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2638	.2629	.00083	1	1,344	1.51
Sex & Ethnicity Interaction Test	2	3	.2638	.2636	.00023	1	1,344	0.42
Slope Differences for Sex	7	8	.2632	.2618	.00132	1	1,347	2.42
Intercept Differences for Sex	8	9	.2618	.2470	.01484	1	1,348	27.10 **
Slope Differences for Ethnicity	10	11	.2473	.2471	.00023	1	1,347	0.42
Intercept Differences for Ethnicity	11	12	.2471	.2470	.00007	1	1,348	0.13
History 1984 - 1985 Sophomore (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2759	.2744	.00151	1	1,431	2.98
Sex & Ethnicity Interaction Test	2	3	.2765	.2743	.00213	1	1,431	4.21
Slope Differences for Sex	7	8	.2735	.2724	.00105	1	1,434	2.08
Intercept Differences for Sex	8	9	.2724	.2445	.02791	1	1,435	55.04 **
Slope Differences for Ethnicity	10	11	.2455	.2448	.00073	1	1,434	1.40
Intercept Differences for Ethnicity	11	12	.2448	.2445	.00024	1	1,435	0.46
History 1985 - 1986 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2184	.2143	.00412	2	1,466	3.86
Sex & Ethnicity Interaction Test	2	3	.2188	.2132	.00562	2	1,467	5.28 *
Slope Differences for Sex	7	8	.2021	.1982	.00385	1	1,473	7.12 *
Intercept Differences for Sex	8	9	.1982	.1525	.04575	1	1,474	84.10 **
Slope Differences for Ethnicity	10	11	.1663	.1591	.00722	2	1,471	6.37 *
Intercept Differences for Ethnicity	11	12	.1591	.1525	.00661	2	1,473	5.79 *
History 1984 - 1985 Junior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2944	.2943	.00011	1	1,102	0.17
Sex & Ethnicity Interaction Test	2	3	.2943	.2937	.00065	1	1,103	1.02
Slope Differences for Sex	7	8	.2926	.2895	.00314	1	1,106	4.91
Intercept Differences for Sex	8	9	.2895	.2409	.04862	1	1,107	75.75 **
Slope Differences for Ethnicity	10	11	.2425	.2425	.00003	1	1,106	0.05
Intercept Differences for Ethnicity	11	12	.2425	.2409	.00163	1	1,107	2.39

Table D-11. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df1	df2	F
History 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2372	.2221	.01511	1	428	8.48 *
History 1985 - 1986 Junior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1690	.1689	.00008	1	409	0.04
Intercept Differences for Ethnicity	11	12	.1689	.1664	.00244	1	410	1.21
History 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.3319	.3245	[illegible]	1	423	4.64
Intercept Differences for Sex	8	9	.3245	.3071	.01743	1	424	10.94 *
History 1984 - 1985 Senior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.3471	.3446	.00247	1	402	1.52
Intercept Differences for Ethnicity	11	12	.3446	.3243	.02033	1	403	12.50 **
Foreign Language 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2709	.2680	00287	1	1,012	3.98
Intercept Differences for Sex	8	9	.2680	.1969	.07108	1	1,013	98.37 **
Foreign Language 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2248	.2241	.00076	2	1,010	0.49
Intercept Differences for Ethnicity	11	12	.2241	.1969	.02713	2	1,012	17.69 **
Foreign Language 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1959	.1887	.00721	1	797	7.14 *
Foreign Language 1985 - 1986 Freshmen (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1469	.1384	.00845	2	795	3.94
Intercept Differences for Ethnicity	11	12	.1384	.1268	.01162	2	797	5.38 *
Foreign Language 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2216	.2175	.00407	1	892	4.66
Intercept Differences for Sex	8	9	.2175	.1138	.10370	1	893	118.35 **
Foreign Language 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1379	.1300	.00790	2	890	4.08
Intercept Differences for Ethnicity	11	12	.1300	.1138	.01615	2	892	8.28 **
Foreign Language 1985 - 1986 Sophomore (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1839	.1839	.00000	1	604	0.00
Sex & Ethnicity Interaction Test	2	3	.1838	.1838	.00008	1	605	0.06
Slope Differences for Sex	7	8	.1658	.1621	.00362	1	608	2.64
Intercept Differences for Sex	8	9	.1621	.0878	.07435	1	609	54.04 **
Slope Differences for Ethnicity	10	11	.1056	.1049	.00069	1	608	0.47
Intercept Differences for Ethnicity	11	12	.1049	.0878	.01709	1	609	11.62 **

Table D-11. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Foreign Language 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2132	.2131	.00014	1	480	0.08
Intercept Differences for Sex	8	9	.2131	.1088	.10435	1	481	63.79 **
Foreign Language 1984 - 1985 Junior (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1409	.1334	.00748	2	478	2.08
Intercept Differences for Ethnicity	11	12	.1334	.1088	.02467	2	480	6.83 *
Foreign Language 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2121	.2102	.00187	1	247	0.58
Intercept Differences for Sex	8	9	.2102	.1405	.06968	1	248	21.88 **
Foreign Language 1985 - 1986 Junior (Ethnicity = White & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1043	.0909	.01340	1	205	3.07
Intercept Differences for Ethnicity	11	12	.0909	.0866	.00430	1	206	0.98
Foreign Language 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1483	.1472	.00117	1	224	0.31
Intercept Differences for Sex	8	9	.1471	.1178	.02937	1	225	7.75 *
Foreign Language 1984 - 1985 Senior (Ethnicity = White & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0629	.0620	.00093	1	185	0.18
Intercept Differences for Ethnicity	11	12	.0620	.0562	.00579	1	186	1.15
Secretary & Office Education 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1212	.1212	.00001	1	215	0.00
Intercept Differences for Ethnicity	11	12	.1212	.1211	.00008	1	216	0.02
Secretary & Office Education 1984 - 1985 Senior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1003	.0866	.01374	1	220	3.36
Intercept Differences for Ethnicity	11	12	.0866	.0772	.00937	1	221	2.27
Typing & Word Processing 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2745	.2718	.00261	1	507	1.82
Intercept Differences for Sex	8	9	.2718	.2476	.02422	1	508	16.90 **
Typing & Word Processing 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2576	.2493	.00821	2	505	2.79
Intercept Differences for Ethnicity	11	12	.2493	.2476	.00171	2	507	0.58
Typing & Word Processing 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1955	.1930	.00249	1	492	1.52
Intercept Differences for Sex	8	9	.1930	.1567	.03633	1	493	22.20 **
Typing & Word Processing 1985 - 1986 Freshmen (Ethnicity = White & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1569	.1565	.00042	1	445	0.22
Intercept Differences for Ethnicity	11	12	.1565	.1504	.00616	1	446	3.26

Table D-11. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Typing & Word Processing 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for	7	8	.2104	.2066	.003[illegible]	1	631	3.06
Intercept Differences for Sex	8	9	.2066	.1507	.05589	1	632	44.52 **
Typing & Word Processing 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1583	.1529	.00543	2	629	2.03
Intercept Differences for Ethnicity	11	12	.1529	.1507	.00220	2	631	0.82
Typing & Word Processing 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1586	.1450	01365	1	405	6.57
Intercept Differences for Sex	8	9	.1450	.1312	.01381	1	406	6.56
Typing & Word Processing 1985 - 1986 Sophomore (Ethnicity = White & Black} (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1278	.1277	.00010	1	[illegible]	0.04
Intercept Differences for Ethnicity	11	12	.1277	.1266	.00116	1	375	0.50
Typing & Word Processing 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2310	.2289	.00289	1	391	1.47
Intercept Differences for Sex	8	9	.2289	.1365	.09239	1	392	46.97 **
Typing & Word Processing 1984 - 1985 Junior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1479	.1473	.00059	1	359	0.25
Intercept Differences for Ethnicity	11	12	.1473	.1425	.00479	1	360	2.02
Typing & Word Processing 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1621	.1518	.01031	1	221	2.72
Intercept Differences for Sex	8	9	.1518	.0991	.05276	1	222	13.81 **
Typing & Word Processing 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1182	.1111	.00711	1	221	1.78
Intercept Differences for Ethnicity	11	12	.1111	.0991	.01201	1	222	3.00
Typing & Word Processing 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1968	.1907	.00618	1	216	1.66
Intercept Differences for Sex	8	9	.1907	.1482	.04242	1	217	11.37 **
Accounting/Bookkeeping 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2117	.2048	.00696	1	311	2.75
Intercept Differences for Sex	8	9	.2048	.1434	.06135	1	312	24.07 **
Accounting/Bookkeeping 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2836	.2787	.00496	1	239	1.66
Intercept Differences for Sex	8	9	.2787	.1572	.12147	1	240	40.41 **
Accounting/Bookkeeping 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1548	.1498	.00498	1	185	1.09
Intercept Differences for Sex	8	9	.1498	.0914	.05840	1	186	12.78 **

Table D-11. (continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df1	df2	F
Accounting/Bookkeeping 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1805	.1799	.00065	1	247	0.20
Intercept Differences for Sex	8	9	.1799	.1194	.06052	1	248	18.30 **
Home Economics 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2683	.2681	.00014	1	547	0.11
Intercept Differences for Sex	8	9	.2881	.2413	[illegible]	1	548	36.06 **
Home Economics 1984-1985 Freshmen (Ethnicity = White [illegible]) (Sex not tested)								
Slope Differences for Ethnicity	10	11	[illegible]	[illegible]	.00153	1	519	1.12
Intercept Differences for Ethnicity	11	12	[illegible]	[illegible]	.06146	1	520	44.70**
Home Economics 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	[illegible]	[illegible]	[illegible]	1	312	1.40
Intercept Differences for Sex	8	9	.2102	[illegible]	.06880	1	313	27.27 **
Home Economics 1985-1986 Freshmen (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1439	.1433	.00057	1	312	0.21
Intercept Differences for Ethnicity	11	12	.1433	.1414	.00194	1	313	0.77
Home Economics 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2101	.2096	.00046	1	321	0.19
Intercept Differences for Sex	8	9	.2096	.1392	.07042	1	322	28.69 **
Home Economics 1984-1985 Sophomore (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1776	.1678	.00982	1	321	3.83
Intercept Differences for Ethnicity	11	12	.1678	.1392	.02852	1	322	11.03*
Home Economics 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1985	.1985	.00020	1	394	0.10
Intercept Differences for Sex	8	9	.1985	.1266	.07169	1	395	35.32 **
Home Economics 1985-1986 Sophomore (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1311	.1268	.00428	1	394	1.94
Intercept Differences for Ethnicity	11	12	.1268	.1266	.00022	1	395	0.10
Home Economics 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1639	.1639	.00002	1	279	0.01
Intercept Differences for Sex	8	9	.1639	.1218	.04212	1	280	14.11 **
Home Economics 1984-1985 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1246	.1238	.00084	1	279	0.27
Intercept Differences for Ethnicity	11	12	.1237	.1218	.00194	1	280	0.62
Home Economics 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2040	.2040	.00000	1	358	0.00
Intercept Differences for Sex	8	9	.2040	.0656	.13843	1	359	62.43 **

Table D-11. (Concluded)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df1	df2	F
Home Economics 1985-1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.0707	.0683	[illegible]	1	358	0.94
Intercept Differences for Ethnicity	11	12	.0683	.0656	[illegible]	1	359	1.04
Home Economics 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1568	.1568	.00001	1	318	0.00
Intercept Differences for Sex	8	9	.1568	.0982	.05859	1	319	22.16 **
Home Economics 1984-1985 Senior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1003	.0990	.00126	1	318	0.45
Intercept Differences for Ethnicity	11	12	.0990	.0982	.00079	1	319	0.28
Computer Programming 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2321	.2277	.00441	1	227	1.30
Intercept Differences for Sex	8	9	.2277	.1229	.10479	1	228	30.93 **
Computer Programming 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2669	.2668	.00002	1	240	0.01
Intercept Differences for Sex	8	9	.2668	.2142	.05261	1	241	17.29 **
Computer Programming 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.3239	.3234	.00045	1	157	0.10
Intercept Differences for Sex	8	9	.3234	.1835	.13995	1	158	32.68 **
Computer Programming 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1535	.1535	.00002	1	152	0.00
Intercept Differences for Sex	8	9	.1535	.1522	.00131	1	153	0.24

* $p < .01$.

** $p < .001$.

Table D-12. F-Tests of Significance for Subtest Composite

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
English I - IV 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2852	.2849	.00023	2	2,422	0.40
Sex & Ethnicity Interaction Test	2	3	.2849	.2786	.00630	2	2,424	10.68 **
Consistent Over or Under prediction of Subgroup	2	4	.2849	.2802	.00474	3	2,424	5.36 *
English I - IV 1985 - 1986 Freshmen (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2290	.2282	.00075	2	1,989	0.97
Sex & Ethnicity Interaction Test	2	3	.2282	.2248	.00338	2	1,991	4.36
Slope Differences for Sex	7	8	.2121	.2116	.00052	1	1,997	1.32
Intercept Differences for Sex	8	9	.2116	.2025	.00915	1	1,998	23.19 **
Slope Differences for Ethnicity	10	11	.2121	.2074	.00474	2	1,995	6.00 *
Intercept Differences for Ethnicity	11	12	.2074	.2025	.00492	2	1,997	6.19 *
English I - IV 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.3160	.3155	.00050	2	2,296	0.84
Sex & Ethnicity Interaction Test	2	3	.3155	.3138	.00175	2	2,298	2.94
Slope Differences for Sex	7	8	.3091	.3037	.00535	1	2,304	17.83 **
Slope Differences for Ethnicity	10	11	.2988	.2967	.00203	2	2,302	3.33
Intercept Differences for Ethnicity	11	12	.2967	.2941	.00263	2	2,304	4.31
English I - IV 1985 - 1986 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2616	.2602	.00143	2	1,942	1.89
Sex & Ethnicity Interaction Test	2	3	.2601	.2584	.00172	2	1,944	2.26
Slope Differences for Sex	7	8	.2460	.2403	.00572	1	1,950	14.79 **
Slope Differences for Ethnicity	10	11	.2334	.2313	.00212	2	1,948	2.70
Intercept Differences for Ethnicity	11	12	.2313	.2211	.01020	2	1,950	12.94 **
English I - IV 1984 - 1985 Junior (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2682	.2682	.00007	2	1,721	0.08
Sex & Ethnicity Interaction Test	2	3	.2682	.2666	.00160	2	1,723	1.88
Slope Differences for Sex	7	8	.2602	.2543	.00594	1	1,729	13.89 **
Slope Differences for Ethnicity	10	11	.2449	.2432	.00168	2	1,727	1.92
Intercept Differences for Ethnicity	11	12	.2432	.2402	.00307	2	1,729	3.51
English I - IV 1985 - 1986 Junior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2382	.2379	.00035	1	1,258	0.58
Sex & Ethnicity Interaction Test	2	3	.2379	.2372	.00065	1	1,259	1.08
Slope Differences for Sex	7	8	.2351	.2280	.00716	1	1,262	11.82 **
Slope Differences for Ethnicity	10	11	.2115	.2115	.00002	1	1,262	0.03
Intercept Differences for Ethnicity	11	12	.2115	.2101	.00140	1	1,263	2.24
English I - IV 1984 - 1985 Senior (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2250	.2238	.00110	2	1,275	0.90
Sex & Ethnicity Interaction Test	2	3	.2238	.2230	.00088	2	1,277	0.72
Slope Differences for Sex	7	8	.2166	.2151	.00148	1	1,283	2.43
Intercept Differences for Sex	8	9	.2151	.2079	.00723	1	1,284	11.82 **
Slope Differences for Ethnicity	10	11	.2122	.2100	.00221	2	1,281	1.79
Intercept Differences for Ethnicity	11	12	.2100	.2079	.00216	2	1,283	1.75

Table D-12. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
General Math 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1365	.1345	.00196	2	1,167	1.33
Sex & Ethnicity Interaction Test	2	3	.1345	.1316	.00295	2	1,169	1.99
Slope Differences for Sex	7	8	.1273	.1271	.00014	1	1,175	0.19
Intercept Differences for Sex	8	9	.1271	.1260	.00110	1	1,176	1.48
Slope Differences for Ethnicity	10	11	.1301	.1291	.00093	2	1,173	0.63
Intercept Differences for Ethnicity	11	12	.1291	.1261	.00309	2	1,175	2.08
General Math 1985 - 1986 Freshmen (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.0635	.0632	.00026	1	549	0.15
Sex & Ethnicity Interaction Test	2	3	.0632	.0594	.00376	1	550	2.21
Slope Differences for Sex	7	8	.0573	.0555	.00180	1	553	1.06
Intercept Differences for Sex	8	9	.0556	.0534	.00211	1	554	1.24
Slope Differences for Ethnicity	10	11	.0556	.0538	.00175	1	553	1.03
Intercept Differences for Ethnicity	11	12	.0538	.0534	.00036	1	554	0.21
General Math 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1639	.1565	.00742	2	736	3.27
Sex & Ethnicity Interaction Test	2	3	.1565	.1532	.00325	2	738	1.42
Slope Differences for Sex	7	8	.1530	.1509	.00212	1	744	1.86
Intercept Differences for Sex	8	9	.1509	.1509	.00000	1	745	0.00
Slope Differences for Ethnicity	10	11	.1513	.1510	.00023	2	742	0.10
Intercept Differences for Ethnicity	11	12	.1510	.1509	.00011	2	744	0.05
General Math 1985 - 1986 Sophomore (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1434	.1402	.00312	1	305	1.11
Sex & Ethnicity Interaction Test	2	3	.1402	.1359	.00436	1	306	1.55
Slope Differences for Sex	7	8	.1107	.1091	.00155	1	309	0.54
Intercept Differences for Sex	8	9	.1091	.0946	.01450	1	310	5.04
Slope Differences for Ethnicity	10	11	.1178	.1178	.00001	1	309	0.00
Intercept Differences for Ethnicity	11	12	.1178	.0946	.02316	1	310	8.14 *
General Math 1984 - 1985 Junior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.1221	.1205	.00162	1	266	0.49
Sex & Ethnicity Interaction Test	2	3	.1205	.1205	.00001	1	267	0.00
Slope Differences for Sex	7	8	.1095	.1087	.00073	1	270	0.22
Intercept Differences for Sex	8	9	.1087	.0971	.01160	1	271	3.53
Slope Differences for Ethnicity	10	11	.1069	.1047	.00216	1	270	0.65
Intercept Differences for Ethnicity	11	12	.1047	.0971	.00761	1	271	2.30
General Math 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1490	.1477	.00122	1	222	0.32
Intercept Differences for Sex	8	9	.1478	.1377	.01008	1	223	2.64
General Math 1985 - 1986 Junior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1826	.1819	.00072	1	195	0.17
Intercept Differences for Ethnicity	11	12	.1819	.1757	.00619	1	196	1.48

Table D-12. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
General Math 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1410	.1254	.01562	1	230	4.18
Intercept Differences for Sex	8	9	.1254	.1239	.00151	1	231	0.40
General Math 1984 - 1985 Senior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1702	.1694	.00088	1	203	0.21
Intercept Differences for Ethnicity	11	12	.1694	.1472	.02221	1	204	5.46
Algebra 1984 - 1985 Freshmen (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2429	.2422	.00073	1	1,180	1.14
Sex & Ethnicity Interaction Test	2	3	.2421	.2421	.00000	1	1,181	0.01
Slope Differences for Sex	7	8	.2386	.2372	.00143	1	1,184	2.22
Intercept Differences for Sex	8	9	.2372	.2305	.00673	1	1,185	10.46 *
Slope Differences for Ethnicity	10	11	.2350	.2305	.00445	1	1,184	6.89 *
Intercept Differences for Ethnicity	11	12	.2305	.2305	.00005	1	1,185	0.07
Algebra 1985 - 1986 Freshmen (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2474	.2474	.00000	1	708	0.00
Sex & Ethnicity Interaction Test	2	3	.2474	.2448	.00254	1	709	2.39
Slope Differences for Sex	7	8	.2295	.2295	.00000	1	712	0.00
Intercept Differences for Sex	8	9	.2295	.2184	.01105	1	713	10.22 *
Slope Differences for Ethnicity	10	11	.2316	.2293	.00236	1	712	2.19
Intercept Differences for Ethnicity	11	12	.2293	.2184	.01088	1	713	10.07 *
Algebra 1984 - 1985 Sophomore (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2006	.2005	.00001	1	871	0.01
Sex & Ethnicity Interaction Test	2	3	.2005	.1946	.00590	1	872	6.43
Slope Differences for Sex	7	8	.1939	.1901	.00376	1	875	4.08
Intercept Differences for Sex	8	9	.1901	.1897	.00039	1	876	0.42
Slope Differences for Ethnicity	10	11	.1905	.1904	.00012	1	875	0.13
Intercept Differences for Ethnicity	11	12	.1904	.1897	.00062	1	876	0.67
Algebra 1985 - 1986 Sophomore (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2150	.2138	.00129	1	617	1.01
Sex & Ethnicity Interaction Test	2	3	.2138	.2107	.00301	1	618	2.37
Slope Differences for Sex	7	8	.1973	.1940	.00325	1	621	2.52
Intercept Differences for Sex	8	9	.1940	.1909	.00318	1	622	2.45
Slope Differences for Ethnicity	10	11	.2023	.1998	.00251	1	621	1.95
Intercept Differences for Ethnicity	11	12	.1998	.1909	.00891	1	622	6.93 *
Algebra 1984 - 1985 Junior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2629	.2626	.00030	1	489	0.20
Sex & Ethnicity Interaction Test	2	3	.2626	.2603	.00224	1	490	1.49
Slope Differences for Sex	7	8	.2568	.2564	.00048	1	493	0.32
Intercept Differences for Sex	8	9	.2564	.2554	.00091	1	494	0.61
Slope Differences for Ethnicity	10	11	.2585	.2559	.00256	1	493	1.70
Intercept Differences for Ethnicity	11	12	.2559	.2554	.00049	1	494	0.33

Table D-12. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Algebra 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2156	.2061	.00951	1	273	3.31
Intercept Differences for Sex	8	9	.2061	.2046	.00148	1	274	0.51
Algebra 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2255	.2087	.01681	1	273	5.93
Intercept Differences for Ethnicity	11	12	.2087	.2046	.00405	1	274	1.40
Algebra 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.3008	.2944	.00644	1	265	2.44
Intercept Differences for Sex	8	9	.2944	.2814	.01295	1	266	4.88
Algebra 1984 - 1985 Senior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2916	.2819	.00980	1	265	3.67
Intercept Differences for Ethnicity	11	12	.2819	.2814	.00043	1	266	0.16
Geometry 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2939	.2936	.00033	1	511	0.24
Intercept Differences for Sex	8	9	.2936	.2922	.00134	1	512	0.97
Geometry 1985 - 1986 Freshmen (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.3035	.2955	.00808	2	509	2.95
Intercept Differences for Ethnicity	11	12	.2955	.2922	.00323	2	511	1.17
Geometry 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2881	.2878	.00030	1	561	0.24
Intercept Differences for Sex	8	9	.2878	.2820	.00577	1	562	4.55
Geometry 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2852	.2821	.00305	2	559	1.19
Intercept Differences for Ethnicity	11	12	.2822	.2821	.00010	2	561	0.04
Geometry 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.3134	.3132	.00017	1	410	0.10
Intercept Differences for Sex	8	9	.3132	.3010	.01215	1	411	7.27 *
Geometry 1985 - 1986 Sophomore (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.3359	.3139	.02199	1	371	12.29 **
Geometry 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2566	.2547	.00185	1	305	0.76
Intercept Differences for Sex	8	9	.2547	.2338	.02087	1	306	8.57 *
Geometry 1984 - 1985 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2359	.2340	.00190	1	305	0.76
Intercept Differences for Ethnicity	11	12	.2340	.2338	.00015	1	306	0.06

Table D-12. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df1	df2	F
Geometry 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.3652	.3611	.00405	1	123	0.78
Intercept Differences for Sex	8	9	.3611	.3259	.03515	1	124	6.82
Geometry 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.4014	.3636	.03780	1	123	7.77 *
Geometry 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.3425	.3058	.03664	1	107	5.96
Intercept Differences for Sex	8	9	.3058	.3038	.00198	1	108	0.31
Geometry 1984 - 1985 Senior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.3246	.3122	.01231	1	107	1.95
Intercept Differences for Ethnicity	11	12	.3122	.3038	.00839	1	108	1.32
Calculus 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2346	.2339	.00071	1	147	0.14
Intercept Differences for Sex	8	9	.2339	.2316	.00226	1	148	0.44
General Science 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.3023	.3006	.00175	2	1,956	2.46
Sex & Ethnicity Interaction Test	2	3	.3006	.2922	.00832	2	1,958	11.64 **
Consistent Over or Under prediction of Subgroup	2	4	.3006	.2992	.00132	3	1,958	1.23
General Science 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1761	.1738	.00229	1	274	0.76
Intercept Differences for Sex	8	9	.1738	.1702	.00365	1	275	1.22
General Science 1985 - 1986 Freshmen (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1818	.1718	.01002	1	240	2.94
Intercept Differences for Ethnicity	11	12	.1718	.1713	.00054	1	241	0.16
General Science 1984 - 1985 Sophomore (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2831	.2824	.00075	1	341	0.36
Sex & Ethnicity Interaction Test	2	3	.2824	.2671	.01528	1	342	7.28 *
Slope Differences for Sex	7	8	.2604	.2566	.00379	1	345	1.77
Intercept Differences for Sex	8	9	.2566	.2519	.00468	1	346	2.18
Slope Differences for Ethnicity	10	11	.2604	.2567	.00379	1	345	1.77
Intercept Differences for Ethnicity	11	12	.2567	.2519	.00476	1	346	2.22
General Science 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2384	.2363	.00212	1	183	0.51
Intercept Differences for Sex	8	9	.2363	.2192	.01715	1	184	4.13
General Science 1985 - 1986 Sophomore (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2535	.2529	.00053	1	158	0.11
Intercept Differences for Ethnicity	11	12	.2529	.2230	.02997	1	159	6.38

Table D-12. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
General Science 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1191	.1190	.00011	1	174	0.02
Intercept Differences for Sex	8	9	.1190	.1174	.00159	1	175	0.32
General Science 1984 - 1985 Junior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1947	.1944	.00035	1	149	0.06
Intercept Differences for Ethnicity	11	12	.1944	.1208	.07354	1	150	13.69 **
General Science 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2655	.2640	.00148	1	258	0.52
Intercept Differences for Sex	8	9	.2640	.2592	.00481	1	259	1.69
General Science 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2645	.2595	.00495	1	258	1.74
Intercept Differences for Ethnicity	11	12	.2595	.2592	.00030	1	259	0.11
General Science 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1456	.1425	.00308	1	182	0.66
Intercept Differences for Sex	8	9	.1425	.1165	.02600	1	183	5.55
Biology I - II 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2733	.2729	.00041	1	299	0.17
Intercept Differences for Sex	8	9	.2729	.2661	.00681	1	300	2.81
Biology I - II 1984 - 1985 Freshmen (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2721	.2661	.00596	1	299	2.45
Intercept Differences for Ethnicity	11	12	.2661	.2661	.00005	1	300	0.02
Biology I - II 1985 - 1986 Freshmen (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2190	.2187	.00029	1	1,119	0.42
Sex & Ethnicity Interaction Test	2	3	.2187	.2186	.00010	1	1,120	0.14
Slope Differences for Sex	7	8	.2184	.2179	.00054	1	1,123	0.78
Intercept Differences for Sex	8	9	.2179	.2109	.00700	1	1,124	10.06 *
Slope Differences for Ethnicity	10	11	.2113	.2113	.00003	1	1,123	0.05
Intercept Differences for Ethnicity	11	12	.2113	.2109	.00035	1	1,124	0.50
Biology I - II 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.3010	.3002	.00079	2	1,371	0.77
Sex & Ethnicity Interaction Test	2	3	.3002	.2900	.01012	2	1,373	9.93 **
Consistent Over or Under prediction of Subgroup	2	4	.3002	.2925	.00764	3	1,373	4.99 *
Biology I - II 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2948	.2887	.00613	1	335	2.91
Intercept Differences for Sex	8	9	.2887	.2807	.00805	1	336	3.80
Biology I - II 1985 - 1986 Sophomore (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2891	.2844	.00464	2	333	1.07
Intercept Differences for Ethnicity	11	12	.2844	.2807	.00377	2	335	0.88

Table D-12. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Biology I - II 1984 - 1985 Junior (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2695	.2691	.00037	1	397	0.20
Sex & Ethnicity Interaction Test	2	3	.2691	.2600	.00915	1	398	4.98
Slope Differences for Sex	7	8	.2567	.2524	.00434	1	401	2.34
Intercept Differences for Sex	8	9	.2524	.2488	.00359	1	402	1.93
Slope Differences for Ethnicity	10	11	.2521	.2490	.00310	1	401	1.66
Intercept Differences for Ethnicity	11	12	.2490	.2480	.00018	1	402	0.09
Biology I - II 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.4877	.4648	.02289	1	147	6.57
Intercept Differences for Sex	8	9	.4648	.4624	.00246	1	148	0.68
Biology I - II 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.3508	.3482	.00258	1	195	0.78
Intercept Differences for Sex	8	9	.3482	.3324	.01577	1	196	4.74
Biology I - II 1984 - 1985 Senior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.3758	.3740	.00177	1	176	0.50
Intercept Differences for Ethnicity	11	12	.3740	.3294	.04466	1	177	12.63 **
Chemistry I - II 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.3153	.3107	.00464	1	128	0.87
Intercept Differences for Sex	8	9	.3107	.3106	.00016	1	129	0.03
Chemistry I - II 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1366	.1365	.00015	1	168	0.03
Intercept Differences for Sex	8	9	.1365	.1150	.02145	1	169	4.20
Chemistry I - II 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.1857	.1851	.00051	1	430	0.27
Intercept Differences for Sex	8	9	.1852	.1765	.00862	1	431	4.56
Chemistry I - II 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2603	.2592	.00111	1	426	0.64
Intercept Differences for Sex	8	9	.2592	.2556	.00365	1	427	2.11
Chemistry I - II 1984 - 1985 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2746	.2600	.01458	1	426	8.56 *
Chemistry I - II 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2234	.2180	.00542	1	137	0.96
Intercept Differences for Sex	8	9	.2180	.2002	.01773	1	138	3.13
Chemistry I - II 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2041	.2027	.00138	1	137	0.24
Intercept Differences for Ethnicity	11	12	.2027	.2002	.00247	1	138	0.43

Table D-12. (Continued)

F-Test Comparison	Comparison		R^2					
	Full	Restricted	Full	Restricted	R^2 Change	df_1	df_2	F
Chemistry I - II 1984 - 1985 Senior (Ehnicity not tested)								
Slope Differences for Sex	7	8	.3099	.2974	.01247	1	156	2.82
Intercept Differences for Sex	8	9	.2974	.2958	.00154	1	157	0.34
Chemistry I - II 1984 - 1985 Senior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.3128	.2968	.01609	1	156	3.65
Intercept Differences for Ethnicity	11	12	.2968	.2958	.00092	1	157	0.21
Physics I - II 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2066	.1892	.01740	1	232	5.09
Intercept Differences for Sex	8	9	.1892	.1827	.00655	1	233	1.88
Physics I - II 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2331	.2303	.00277	1	166	0.60
Intercept Differences for Sex	8	9	.2303	.2268	.00357	1	167	0.78
Government & Civics 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.3286	.3277	.00088	1	344	0.45
Intercept Differences for Sex	8	9	.3277	.3275	.00027	1	345	0.14
Government & Civics 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2415	.2150	.02654	1	155	5.42
Intercept Differences for Sex	8	9	.2150	.2076	.00744	1	156	1.48
Government & Civics 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2355	.2262	.00937	1	417	5.11
Intercept Differences for Sex	8	9	.2262	.2253	.00086	1	418	0.47
Government & Civics 1985 - 1986 Sophomore (Ethnicity = White & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2638	.2638	.00000	1	388	0.00
Intercept Differences for Ethnicity	11	12	.2638	.2462	.01756	1	389	9.28 *
Government & Civics 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.3054	.3027	.00270	1	456	1.77
Intercept Differences for Sex	8	9	.3027	.3014	.00131	1	457	0.86
Government & Civics 1984 - 1985 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.3072	.3063	.00085	1	456	0.56
Intercept Differences for Ethnicity	11	12	.3063	.3014	.00495	1	457	3.26
Government & Civics 1985 - 1986 Junior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.3046	.3036	.00100	1	707	1.01
Sex & Ethnicity Interaction Test	2	3	.3036	.3036	.00001	1	708	0.01
Slope Differences for Sex	7	8	.3024	.3018	.00063	1	711	0.65
Intercept Differences for Sex	8	9	.3018	.2979	.00387	1	712	3.95
Slope Differences for Ethnicity	10	11	.2993	.2980	.00125	1	711	1.27
Intercept Differences for Ethnicity	11	12	.2980	.2979	.00017	1	712	0.17

Table D-12. (Continued)

F-Test Comparison	Comparison: Full	Comparison: Restricted	R^2: Full	R^2: Restricted	R^2 Change	df_1	df_2	F
Government & Civics 1984 - 1985 Senior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2853	.2852	.00003	1	602	0.02
Sex & Ethnicity Interaction Test	2	3	.2852	.2852	.00000	1	603	0.00
Slope Differences for Sex	7	8	.2817	.2813	.00043	1	606	0.36
Intercept Differences for Sex	8	9	.2813	.2789	.00238	1	607	2.01
Slope Differences for Ethnicity	10	11	.2832	.2831	.00003	1	606	0.03
Intercept Differences for Ethnicity	11	12	.2831	.2789	.00425	1	607	3.60
History 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.3051	.3043	.00071	2	1,319	0.68
Sex & Ethnicity Interaction Test	2	3	.3043	.3013	.00306	2	1,321	2.90
Slope Differences for Sex	7	8	.2952	.2951	.00018	1	1,327	0.33
Intercept Differences for Sex	8	9	.2951	.2829	.01214	1	1,328	22.88 **
Slope Differences for Ethnicity	10	11	.2898	.2836	.00622	2	1,325	5.81 *
Intercept Differences for Ethnicity	11	12	.2836	.2829	.00065	2	1,327	0.60
History 1985 - 1986 Freshmen (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.3028	.3027	.00004	1	1,343	0.08
Sex & Ethnicity Interaction Test	2	3	.3027	.3027	.00001	1	1,344	0.02
Slope Differences for Sex	7	8	.3007	.3006	.00011	1	1,347	0.21
Intercept Differences for Sex	8	9	.3006	.3005	.00002	1	1,348	0.03
Slope Differences for Ethnicity	10	11	.3026	.3007	.00189	1	1,347	3.64
Intercept Differences for Ethnicity	11	12	.3007	.3005	.00018	1	1,348	0.35
History 1984 - 1985 Sophomore (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.3093	.3083	.00104	1	1,430	2.15
Sex & Ethnicity Interaction Test	2	3	.3083	.3046	.00372	1	1,431	7.69 *
Slope Differences for Sex	7	8	.3025	.3025	.00001	1	1,434	0.01
Intercept Differences for Sex	8	9	.3025	.3016	.00084	1	1,435	1.73
Slope Differences for Ethnicity	10	11	.3035	.3033	.00024	1	1,434	0.49
Intercept Differences for Ethnicity	11	12	.3033	.3016	.00162	1	1,435	3.33
History 1985 - 1986 Sophomore (Ethnicity = White, Black & Hispanic)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2417	.2411	.00062	2	1,465	0.60
Sex & Ethnicity Interaction Test	2	3	.2411	.2338	.00727	2	1,467	7.03 **
Consistent Over or Under prediction of Subgroup	2	4	.2411	.2334	.00773	3	1,467	4.98 *
History 1984 - 1985 Junior (Ethnicity = White & Black)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.3254	.3244	.00094	1	1,102	1.54
Sex & Ethnicity Interaction Test	2	3	.3244	.3217	.00276	1	1,103	4.50
Slope Differences for Sex	7	8	.3164	.3163	.00010	1	1,106	0.16
Intercept Differences for Sex	8	9	.3163	.3123	.00402	1	1,107	6.51
Slope Differences for Ethnicity	10	11	.3169	.3167	.0001[illegible]	1	1,106	0.17
Intercept Differences for Ethnicity	11	12	.3168	.3123	.00450	1	1,107	7.30 *
History 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2717	.2557	01606	1	428	9.44 *

Table D-12. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
History 1985 - 1986 Junior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2582	.2561	.00216	1	409	1.19
Intercept Differences for Ethnicity	11	12	.2561	.2492	.00685	1	410	3.78
History 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.3837	.3819	.00181	1	423	1.24
Intercept Differences for Sex	8	9	.3819	.3799	.00203	1	424	1.40
History 1984 - 1985 Senior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.4153	.4137	.00154	1	402	1.06
Intercept Differences for Ethnicity	11	12	.4137	.3861	.02759	1	403	18.97 **
Foreign Language 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.3263	.3263	.00006	1	1,012	0.09
Intercept Differences for Sex	8	9	.3263	.3172	.00910	1	1,013	13.68 **
Foreign Language 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.3377	.3293	.00835	2	1,010	6.37 *
Foreign Language 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2558	.2554	.00047	1	797	0.50
Intercept Differences for Sex	8	9	.2554	.2491	.00622	1	798	6.66
Foreign Language 1985 - 1986 Freshmen (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2552	.2525	.00264	2	795	1.41
Intercept Differences for Ethnicity	11	12	.2525	.2491	.00338	2	777	1.80
Foreign Language 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2722	.2721	.00009	1	892	0.11
Intercept Differences for Sex	8	9	.2721	.2585	.01360	1	893	16.68 **
Foreign Language 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2655	.2618	.00363	2	890	2.20
Intercept Differences for Ethnicity	11	12	.2618	.2585	.00332	2	892	2.01
Foreign Language 1985 - 1986 Sophomore (Ethnicity = White & Nonwhite)								
3-way Interaction Test (ASVAB*sex*ethnicity)	1	2	.2025	.2014	.00113	1	604	0.86
Sex & Ethnicity Interaction Test	2	3	.2014	.2004	.00099	1	605	0.75
Slope Differences for Sex	7	8	.1977	.1975	.00013	1	608	0.10
Intercept Differences for Sex	8	9	.1975	.1814	.01617	1	609	12.27 **
Slope Differences for Ethnicity	10	11	.1870	.1870	.00003	1	608	0.03
Intercept Differences for Ethnicity	11	12	.1870	.1814	.00561	1	609	4.20
Foreign Language 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2402	.2371	.00306	1	480	1.93
Intercept Differences for Sex	8	9	.2371	.2116	.02557	1	481	16.12 **

Table D-12. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Foreign Language 1984 - 1985 Junior (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2352	.2187	.01652	2	478	5.16 *
Foreign Language 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2369	.2315	.00544	1	247	1.76
Intercept Differences for Sex	8	9	.2315	.2073	.02413	1	248	7.79 *
Foreign Language 1985 - 1986 Junior (Ethnicity = White & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1751	.1531	.02197	1	205	5.46
Intercept Differences for Ethnicity	11	12	.1531	.1483	.00482	1	206	1.17
Foreign Language 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2239	.2205	.00343	1	224	0.99
Intercept Differences for Sex	8	9	.2205	.2137	.00675	1	225	1.95
Foreign Language 1984 - 1985 Senior (Ethnicity = White & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1732	.1725	.00078	1	185	0.17
Intercept Differences for Ethnicity	11	12	.1725	.1692	.00324	1	186	0.73
Secretary & Office Education 1985 - 1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2305	.2254	.00510	1	215	1.42
Intercept Differences for Ethnicity	11	12	.2254	.2254	.00005	1	216	0.01
Secretary & Office Education 1984 - 1985 Senior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1820	.1792	.00277	1	220	0.75
Intercept Differences for Ethnicity	11	12	.1793	.1772	.00201	1	221	0.54
Typing & Word Processing 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.3074	.3071	.00030	1	507	0.22
Intercept Differences for Sex	8	9	.3071	.3053	.00184	1	508	1.35
Typing & Word Processing 1984 - 1985 Freshmen (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.3110	.3079	.00315	2	505	1.15
Intercept Differences for Ethnicity	11	12	.3079	.3052	.00262	2	507	0.96
Typing & Word Processing 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2268	.2266	.00017	1	492	0.11
Intercept Differences for Sex	8	9	.2266	.2171	.00955	1	493	6.09
Typing & Word Processing 1985 - 1986 Freshmen (Ethnicity = White & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2334	.2275	.00589	1	445	3.42
Intercept Differences for Ethnicity	11	12	.2275	.2264	.00110	1	446	0.63
Typing & Word Processing 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2572	.2571	.00005	1	631	0.04
Intercept Differences for Sex	8	9	.2571	.2551	.00207	1	632	1.76

Table D-12. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Typing & Word Processing 1984 - 1985 Sophomore (Ethnicity = White, Black & Hispanic) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2564	.2559	.00050	2	629	0.21
Intercept Differences for Ethnicity	11	12	.2559	.2551	.00086	2	631	0.37
Typing & Word Processing 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2035	.2017	.00181	1	405	0.92
Intercept Differences for Sex	8	9	.2017	.1983	.00342	1	406	1.74
Typing & Word Processing 1985 - 1986 Sophomore (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1921	.1899	.00225	1	374	1.04
Intercept Differences for Ethnicity	11	12	.1899	.1861	.00382	1	375	1.77
Typing & Word Processing 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2533	.2532	.00012	1	391	0.06
Intercept Differences for Sex	8	9	.2532	.2440	.00921	1	392	4.84
Typing & Word Processing 1984 - 1985 Junior (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2456	.2456	.00005	1	359	0.02
Intercept Differences for Ethnicity	11	12	.2456	.2454	.00015	1	360	0.07
Typing & Word Processing 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex		8	.1837	.1748	.00886	1	221	2.40
Intercept Differences for Sex	8	9	.1748	.1650	.00978	1	222	2.63
Typing & Word Processing 1985-1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1821	.1811	.00102	1	221	0.28
Intercept Differences for Ethnicity	11	12	.1811	.1650	.01606	1	222	4.35
Typing & Word Processing 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2705	.2645	.00598	1	216	1.77
Intercept Differences for Sex	8	9	.2645	.2614	.00312	1	217	0.92
Accounting/Bookkeeping 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2264	.2257	.00072	1	311	0.29
Intercept Differences for Sex	8	9	.2257	.2072	[illegible]943	1	312	7.43 *
Accounting/Bookkeeping 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.3820	.3798	.00[illegible]	1	239	0.86
Intercept Differences for Sex	8	9	.3798	.3769	.00289	1	240	1.12
Accounting/Bookkeeping 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2423	.2419	.00043	1	185	0.10
Intercept Differences for Sex	8	9	.2419	.2377	.00413	1	186	1.01
Accounting/Bookkeeping 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2330	.2320	.00099	1	247	0.32
Intercept Differences for Sex	8	9	.2320	.2252	.00679	1	248	2.19

Table D-12. (Continued)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Home Economics 1984 - 1985 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.3083	.3083	.00004	1	547	0.03
Intercept Differences for Sex	8	9	.3083	.2870	.02127	1	548	16.85 **
Home Economics 1984-1985 Freshmen (Ethnicity = White & Black) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.3266	.3265	.00013	1	519	0.10
Intercept Differences for Ethnicity	11	12	.3265	.2650	.06145	1	520	47.44**
Home Economics 1985 - 1986 Freshmen (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2084	.2059	.00254	1	312	1.00
Intercept Differences for Sex	8	9	.2059	.1640	.04182	1	313	16.48 **
Home Economics 1985-1986 Freshmen (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.1696	.1667	.00287	1	312	1.08
Intercept Differences for Ethnicity	11	12	.1667	.1640	.00266	1	313	1.00
Home Economics 1984 - 1985 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2219	.2219	.00002	1	321	0.01
Intercept Differences for Sex	8	9	.2219	.2026	.01936	1	322	8.01 *
Home Economics 1984-1985 Sophomore (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2535	.2402	.01328	1	321	5.71
Intercept Differences for Ethnicity	11	12	.2402	.2026	.03762	1	322	15.94**
Home Economics 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2086	.2085	.00005	1	394	0.02
Intercept Differences for Sex	8	9	.2085	.1940	.01449	1	395	7.23 *
Home Economics 1985-1986 Sophomore (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2052	.1954	.00979	1	394	4.85
Intercept Differences for Ethnicity	11	12	.1954	.1940	.00135	1	395	0.66
Home Economics 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2237	.2209	.00281	1	279	1.01
Intercept Differences for Sex	8	9	.2209	.2207	.00022	1	280	0.08
Home Economics 1984-1985 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2267	.2264	.00033	1	279	0.12
Intercept Differences for Ethnicity	11	12	.2264	.2207	.00571	1	280	2.07
Home Economics 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2252	.2244	.00081	1	358	0.37
Intercept Differences for Sex	8	9	.2244	.2031	.02128	1	359	9.85 *
Home Economics 1985-1986 Junior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2071	.2071	.00006	1	358	0.03
Intercept Differences for Ethnicity	11	12	.2071	.2031	.00392	1	359	1.77

Table D-12. (Concluded)

F-Test Comparison	Comparison Full	Comparison Restricted	R^2 Full	R^2 Restricted	R^2 Change	df_1	df_2	F
Home Economics 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2310	.2281	.00292	1	318	1.21
Intercept Differences for Sex	8	9	.2281	.2079	.02017	1	319	8.33 *
Home Economics 1984-1985 Senior (Ethnicity = White & Nonwhite) (Sex not tested)								
Slope Differences for Ethnicity	10	11	.2128	.2083	.00452	1	318	1.83
Intercept Differences for Ethnicity	11	12	.2083	.2079	.00036	1	319	0.14
Computer Programming 1985 - 1986 Sophomore (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2984	.2982	.00020	1	227	0.07
Intercept Differences for Sex	8	9	.2982	.2873	.01089	1	228	3.54
Computer Programming 1984 - 1985 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.3410	.3405	.00053	1	240	0.19
Intercept Differences for Sex	8	9	.3405	.3319	.00857	1	241	3.13
Computer Programming 1985 - 1986 Junior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.4206	.4140	.00665	1	157	1.80
Intercept Differences for Sex	8	9	.4140	.3833	.03064	1	158	8.26 *
Computer Programming 1984 - 1985 Senior (Ethnicity not tested)								
Slope Differences for Sex	7	8	.2528	.2517	.00104	1	152	0.21
Intercept Differences for Sex	8	9	.2517	.2517	.00002	1	153	0.00

* $p < .01$.

** $p < .001$.